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DOUTORADO EM ZOOLOGIA

**REVISÃO TAXONÔMICA DO GÊNERO *ACTINOPUS* PERTY, 1833, COM A DESCRIÇÃO DE
QUATRO ESPÉCIES NOVAS DE *MISSULENA* WALCKENAER, 1805 (ARANEAE,
MYGALOMORPHAE, ACTINOPODIDAE)**

Laura Tavares Miglio

Tese apresentada ao Programa de Pós-graduação em Zoologia, Nível Doutorado, do Museu Paraense Emílio Goeldi e Universidade Federal do Pará como requisito para obtenção do grau de doutor em Zoologia.

Orientador: Dr. Alexandre Bragio Bonaldo

Co-orientador: Dr. Fernando Pérez-Miles

BELÉM – PARÁ, 2014

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BANCA EXAMINADORA

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Dr. Gustavo Rodrigo Sanches Ruiz, Titular
Universidade Federal do Pará (UFPA)

Dr. José Paulo Leite Guadanucci, Titular
Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Rio Claro

Dr. Ricardo Ott, Titular
Fundação Zoobotânica do Rio Grande do Sul (FBZ)

Dr. Cleverson Rannieri Meira dos Santos, Titular
Museu Paraense Emílio Goeldi (MPEG)

Dra. Flavia Rodrigues Fernandes, Titular
Museu Paraense Emílio Goeldi (MPEG)

Dr. Orlando Tobias Silveira, Suplente
Museu Paraense Emílio Goeldi (MPEG)

Dr. Fernando Augusto Barbosa Silva, Suplente
Universidade Federal do Pará (UFPA)

*Is this the end of the beginning? Or the beginning of the end? Losing control or are you
winning? Is your life real or just pretend?
(Ozzy Osbourne)*

DEDICATÓRIA

Aos meus pais, Laura e Alfredo, e aos meus avós, Lindalva e Arthur.

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INTRODUÇÃO GERAL

A ordem Araneae é a sétima em diversidade do mundo envolvendo 47.309 espécies conhecidas (World Spider Catalog 2018) e 170.000 estimadas (Coddington & Levi 1991). Ocupam todos os ambientes, desde altas montanhas até os desertos e são encontradas até mesmo sob a neve. Como pequenos predadores, ocupam uma posição chave na cadeia alimentar e se alimentam de insetos e outros pequenos animais, servindo como presas para vertebrados maiores. Nesse sentido, constituem um grupo animal indicador privilegiado em monitoramentos ambientais.

As aranhas Mygalomorphae são popularmente conhecidas como caranguejeiras (Bates 1962; Torres 1921; Vellard 1936; Gertsch 1949; Bertani 2001), e a classificação proposta por Raven (1985) reconheceu 15 famílias. Posteriormente, em 2012, Bond propôs uma 16ª família com base em análises moleculares, denominada Euctenizidae. Mais recentemente, em um trabalho que propõe uma reclassificação filogenômica com implicações na evolução do veneno, Hedin *et al.* (2018) propôs um novo ranqueamento de duas Subfamílias da Família Hexathelidae, para Família, sendo elas Atracinae e Macrothelinae; e nesse mesmo trabalho, o gênero *Porrhothele* foi removido de Hexathelidae (Subfamília Macrothelinae) e reclassificado como Família, dando origem à terceira nova Família proposta nesse estudo, *Porrhothelidae*, e adicionando três novas Famílias à Infraordem Mygalomorphae. São em geral aranhas de médio a grande porte, variando entre dois a dez centímetros de comprimento corporal, e são representantes de Mygalomorphae que apresentam as maiores dimensões entre as aranhas. Esses animais são caracterizados por possuírem as seguintes sinapomorfias: Perda das fiandeiras médias anteriores, fiandeiras laterais

anteriores muito menores que as laterais posteriores, segmento basal das fiandeiras laterais posteriores pseudo-segmentado, presença de sigilas esternais e êmbolo fundido com o tegulum (redução do número de escleritos do bulbo copulador) (Raven 1985). No território brasileiro, as aranhas Mygalomorphae estão representadas por 11 famílias: Actinopodidae, Barychelidae, Ctenizidae, Cyrtaucheniidae, Dipluridae, Idiopidae, Mecicobothriidae, Microstigmatidae, Nemesiidae, Paratropididae e Theraphosidae. Apesar de, nos últimos anos, ter-se observado um aumento no número de estudos relacionados a essas aranhas, pouco se conhece sobre a distribuição geográfica da maioria delas e ainda menos sobre aspectos da sistemática, ecologia e comportamento desses animais.

A família Actinopodidae Simon, 1892 possui atualmente 49 espécies pertencentes a três gêneros (World Spider Catalog 2018). Actinopodidae atinge sua maior diversidade na região Neotropical, mas um número significativo de espécies ocorre também na região Australiana. As espécies incluídas na família estão distribuídas nos gêneros *Missulena* Walckenaer, 1805, *Actinopus* Perty, 1833 e *Plesiolen*a Goloboff & Platnick, 1987. *Missulena* apresenta uma distribuição geográfica que se estende do leste (Estado de New South Wales) ao sul da Austrália, com uma ocorrência no Chile (*Missulena tussulena* Goloboff, 1994). *Plesiolen*a é conhecido por apenas duas espécies e se encontra distribuído somente no Chile (World Spider Catalog 2017). *Actinopus* está distribuído do Panamá até a Argentina e comporta 29 espécies descritas, 15 das quais ocorrem no Brasil. Actinopodidae é um grupo facilmente reconhecido pela combinação dos seguintes caracteres: São caranguejeiras de porte pequeno a médio; apresentam três unhas tarsais e não possuem tufos sub-ungueais; presença de rastelo; ausência de cômoros oculares; fóvea fortemente procurva;

enditos curtos e quadrangulares; e lábio alongado (Joqué & Dippenaar-Schoeman 2007).

Actinopus possui espécies abundantes, com ampla distribuição geográfica, apesar de não serem encontradas com facilidade, devido aos hábitos fossoriais de fêmeas e machos jovens. Os machos adultos, entretanto, são mais fáceis de serem encontrados devido aos seus hábitos errantes. As fêmeas são emboscadoras e têm por hábito cavar tocas do tipo alçapão (Figs 1 B-C, 3 B-C, F). Entretanto, geralmente após o primeiro exemplar ter sido encontrado, outros espécimes são facilmente vistos, uma vez que eles costumam apresentar distribuição agregada (Brescovit *et al.* 2002).

O gênero *Actinopus* é facilmente identificado por apresentar fila anterior de olhos procurva; olhos laterais alinhados antero-posteriormente; unhas apresentando um ou dois dentes; machos com apófise paraembólica no bulbo copulatório e escópula ventral nos metatarsos e tarsos; espermatecas das fêmeas formadas por dois receptáculos, com ductos curtos (Miglio 2009).

Missulena é o único representante da família Actinopodidae encontrado na Austrália e possui biologia pouco conhecida, apesar de apresentar importância médica elevada devido aos acidentes com inoculação de veneno (Sutherland & Nolch 2000).

As “mouse spiders” de cabeça vermelha (*Missulena occatoria* Walckenaer, 1805) podem ser encontradas em floresta aberta aos habitats semi-áridos de matagal (“bushland”). Como as aranhas alçapão neotropicais, a “mouse spider” vive em tocas no solo, muitas vezes em margens de rios, riachos e outras vias navegáveis, e às vezes é encontrada em jardins suburbanos. As tocas são construídas com alçapões pertencentes a um casal ou um só indivíduo e a entrada é de forma oval. As fêmeas

tendem a permanecer na toca ou próximo delas durante toda a sua vida, e são aranhas lentas e que raramente são agressivas (Carter 2012).

O gênero *Missulena* é facilmente identificado pela fila anterior de olhos reta; olhos médios posteriores mais próximos dos olhos laterais anteriores do que dos olhos laterais posteriores (Simon 1892); machos com palpos mais curtos que as pernas I (Goloboff & Platnick 1987), patela I com espinhos robustos (Womersley 1943), esterno rebordado (Raven 1985) e êmbolo do palpo mais fino do que os dos outros Actinopodidae e quase em linha reta (Goloboff & Platnick 1987).

O gênero *Plesiolen*a possui biologia pouco conhecida e hipoteticamente é mais intimamente relacionado com o gênero australiano *Missulena* do que com o neotropical *Actinopus* (Goloboff & Platnick 1987). *Plesiolen*a pode ser facilmente identificado por apresentar: o ápice da quelícera arredondado, as sigilas esternais bem separada, patela e tibia III com espinhos normais, tibia I e II das fêmeas com e espinulação similar, e bulbo copulatório dos machos com carência de apófises (Legendre & Calderon 1984).

Recentemente, Miglio (2009), em uma Dissertação de Mestrado, apresentou a revisão taxonômica das espécies brasileiras de *Actinopus*, na qual foram redescritas dez espécies e descrita uma espécie nova, registrada para a região de Almeirim, noroeste do Pará. O único resultado publicado desta dissertação foi a redescritção da espécie-tipo de *Actinopus*, ocorrente na Região Nordeste do Brasil. Assim, Miglio *et al.* (2012) esclareceu a identidade desta espécie, na qual está baseada toda a taxonomia da família. Os resultados restantes, até agora inéditos, foram incluídos no primeiro capítulo desta Tese, que traz a revisão taxonômica completa do gênero *Actinopus*. Assim, o presente trabalho dá continuidade ao iniciado por Miglio (2009), incluindo a

redescritção de 17 espécies previamente conhecidas e a proposição de 44 espécies novas. Para a realização deste trabalho foi reunido um total de 1375 espécimes adultos, o que representa o maior esforço comparativo já realizado na família. O trabalho aqui apresentado possibilita a identificação das espécies válidas de *Actinopus* descritas no passado. Além disso, foi examinado material de todas as espécies válidas de *Actinopus*, além das espécies-tipo dos três gêneros de Actinopodidae, de forma a embasar as decisões taxonômicas tomadas durante a revisão do gênero.

A necessidade de delimitar melhor o gênero *Actinopus*, com base em caracteres que pudessem ser considerados como sinapomorfias putativas do grupo, motivou o exame do material disponível de *Plesiolenia*, bem como o estudo mais aprofundado de espécies Australianas de *Missulena*. Assim, foi realizada uma viagem de estudos à Austrália, onde foi realizado o exame da maior parte do material ordinário disponível em museus daquele país, além do exame de todos os tipos de *Missulena* disponíveis. Um dos resultados deste esforço é relatado no capítulo 2, onde são descritas quatro espécies inéditas de *Missulena* baseadas em machos.

O número excepcionalmente grande de espécies novas para a ciência descritas nesta Tese denota o pouco conhecimento sobre Actinopodidae acumulado desde a proposição do gênero *Actinopus* em 1833. O total de 48 espécies novas de *Actinopus* e *Missulena* aqui descritas representa um incremento de mais de 200% no número de espécies conhecidas da família em todo o globo. A clarificação da taxonomia de espécies de *Actinopus* e *Missulena*, proporcionada pelo presente trabalho, poderá viabilizar a realização de uma análise filogenética das espécies da família, com a inclusão de terminais representativos de todos os gêneros atualmente reconhecidos, provenientes da Região Neotropical, Chile e Austrália.

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**CAPÍTULO I: TAXONOMIC REVIEW OF THE GENUS *ACTINOPUS* PERTY, 1833
(ARANEAE, MYGALOMORPHAE, ACTINOPODIDAE)**

**Taxonomic Revision of the Spider Genus *Actinopus* Perty, 1833 (Araneae,
Mygalomorphae, Actinopodidae)**

LAURA TAVARES MIGLIO^{1,3}, FERNANDO PÉREZ-MILES² & ALEXANDRE B.
BONALDO¹

1. Museu Paraense Emílio Goeldi, Coordenação de Zoologia, Laboratório de Aracnologia, Av. Perimetral, 1901, Terra Firme, Cep: 66077-830, Belém, Pará, Brazil.
2. Facultad de Ciencias, Sección Entomología, Iguá 4225, 11400, Montevideo, Uruguay.
3. Corresponding Author: lauramiglio@gmail.com.

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Abstract

Actinopus Perty, 1833 is characterized and redescribed, harboring sixty-three species occurring from Panama to Argentina. Seventeen previously known species are redescribed: *A. tarsalis* Perty, 1833; *A. rufipes* (Lucas, 1834); *A. longipalpis* C. L. Koch, 1842; *A. nattereri* (Doleschall, 1871); *A. insignis* (Holmberg, 1881); *A. crassipes* (Keyserling, 1891); *A. robustus* (O. Pickard-Cambridge, 1892); *A. wallacei* F. O. P.-Cambridge, 1896; *A. princeps* Chamberlin, 1917, *A. xenus* Chamberlin, 1917; *A. fractus* Mello-Leitão, 1920; *A. paranensis* Mello-Leitão, 1920; *A. pusillus* Mello-Leitão, 1920; *A. dubiomaculatus* Mello-Leitão, 1923; *A. trinotatus* Mello-Leitão, 1938; *A. cucutaensis* Mello-Leitão, 1941; and *A. echinus* Mello-Leitão, 1949. Forty-four new species are described: *Actinopus castelo* n. sp., *A. apalai* n. sp., *A. mairinquensis* n. sp., *A. obidos* n. sp., *A. buritiensis* n. sp., *A. pinhao* n. sp., *A. ducque* n. sp., *A. hirsutus* n. sp., *A. jaboticatubas* n. sp., *A. confusus* n. sp., *A. pampulha* n. sp., *A. candango* n. sp., *A. paraitinga* n. sp., *A. cornelli* n. sp., *A. vilhena* n. sp., *A. harveyi* n. sp., *A. itapitocai* n. sp., *A. ipioca* n. sp., *A. itaqui* n. sp., *A. xingu* n. sp., *A. mesa* n. sp., *A. caxiuana* n. sp., *A. utinga* n. sp., *A. emas* n. sp., *A. bocaina* n. sp., *A. guajara* n. sp., *A. apiacas* n. sp., *A. jamari* n. sp. from Brazil; *A. laventana* n. sp. and *A. calamuchita* n. sp. from Argentina

and Uruguay; *A. lomalinda* n. sp. from British Guiana and Colombia; *A. concinnus* n. sp. from Venezuela and Brazil; *A. palmar* n. sp. and *A. loscocos* n. sp. from Argentina; *A. panguana* n. sp. from Peru. The females of *A. dubiomaculatus* and *A. cucutaensis* and the unknown males of *A. nattereri* are described for the first time. New records are presented for *A. crassipes*; *A. dubiomaculatus*; *A. fractus*; *A. nattereri*; *A. paranensis*; *A. princeps*, *A. pusillus*, *A. robustus* and *A. wallacei*. Most of the species presently recognized were included in eleven informal groups based mainly in male palpal characters. A key for these groups plus three species, not included in any group, but known from males, is presented.

Key-words: Neotropical, Actinopodidae, Mygalomorphae, distribution, taxonomy.

Introduction

The Family Actinopodidae consists of three genera: *Actinopus* Perty, 1833 *Missulena* Walckenaer, 1805 and *Plesiolena* Goloboff & Platnick, 1987. Currently the family holds 49 species distributed in Australia and across South America, from Panama to Argentina and Chile. *Missulena* has a mainly Australian distribution, with a single species known from Chile, and the genus *Plesiolena* is known exclusively from Chile (World Spider Catalog 2017). The Neotropical Region, where 29 nominal species of the type genus *Actinopus* occur, harbors the greatest diversity of species of the family.

The subfamily Actinopodinae was proposed by Simon (1892) in Aviculariidae, concomitantly with Paratropidinae and Miginae. That subfamily was created to allocate the genera *Actinopus* Perty, 1833, *Eriodon* Lucas, 1865 and *Stasimopus* Simon, 1892. Simon (1892) included four species in Actinopodinae: the type species *A. tarsalis* Perty, 1833 from Piauí, Brazil; *A. rufipes* (Lucas, 1834), from Minas Gerais, Brazil; *A. longipalpis* C. L. Koch, 1842 from Montevideo, Uruguay; and *A. insignis* (Holmberg, 1881), from Buenos Aires, Argentina. Until then, the genus distribution was known from Central and South America. Subsequently, F. O. Pickard-Cambridge (1896) raised all three subfamilies to family status.

Actinopus comprises about 60,41% of the current diversity of species of Actinopodidae. The genus was proposed by Perty (1833) to accommodate the type species *A. tarsalis* Perty, 1833 from the southern of Piauí state, Brazil. Lucas (1837) transferred the species to genus *Pachyloscelis* and Walckenaer (1842) to genus

Sphodros. C. L. Koch (1842) revalidated *Actinopus*, which had been placed in synonymy of *Pachyloscelis* by Lucas (1837), redescribing the type species and extending its distribution to Uruguay. Simon (1892) was the first to provide a dichotomic key to the genera included in Actinopodidae at that time.

Currently (World Spider Catalog 2018) the genus includes 29 species, all with Neotropical distributions: *A. caraiba* (Simon, 1889); *A. crassipes* (Keyserling, 1891); *A. cochabamba* Ríos-Tamayo, 2016; *A. cucutaensis* Mello-Leitão, 1941; *A. dubiomaculatus* Mello-Leitão, 1923; *A. echinus* Mello-Leitão, 1949; *A. fractus* Mello-Leitão, 1920; *A. goloboffi* Ríos, 2014; *A. harti* Pocock, 1895; *A. insignis* (Holmberg, 1881); *A. liodon* (Ausserer, 1875); *A. longipalpis* C. L. Koch, 1842; *A. nattereri* (Doleschall, 1871); *A. nigripes* (Lucas, 1834); *A. paranensis* Mello-Leitão, 1920; *A. pertyi* Lucas, 1843; *A. piceus* (Ausserer, 1871); *A. princeps* Chamberlin, 1917; *A. pusillus* Mello-Leitão, 1920; *A. robustus* (O. P.-Cambridge, 1892); *A. rojasi* (Simon, 1889); *A. rufibarbis* Mello-Leitão, 1930; *A. rufipes* (Lucas, 1834); *A. scalops* (Simon, 1889); *A. tarsalis* Perty, 1833; *A. trinotatus* Mello-Leitão, 1938; *A. valencianus* (Simon, 1889); *A. wallacei* F. O. P.-Cambridge, 1917; and *A. xenus* Chamberlin, 1917.

In the present paper, 16 of the 29 species in *Actinopus* are recognized as valid and redescribed: *A. rufipes* (Lucas, 1834); *A. longipalpis* C. L. Koch, 1842; *A. nattereri* (Doleschall, 1871); *A. insignis* (Holmberg, 1881); *A. crassipes* (Keyserling, 1891); *A. robustus* (O. Pickard-Cambridge, 1892); *A. wallacei* F. O. Pickard-Cambridge, 1896; *A. princeps* Chamberlin, 1917; *A. xenus* Chamberlin, 1917; *A. fractus* Mello-Leitão, 1920; *A. paranensis* Mello-Leitão, 1920; *A. pusillus* Mello-Leitão, 1920; *A. dubiomaculatus* Mello-Leitão, 1923; *A. trinotatus* Mello-Leitão, 1938; *A. cucutaensis* Mello-Leitão, 1941; and *A. echinus* Mello-Leitão, 1949. The other previously described species, were considered *species inquirendae* for different reasons (see the session "composition", under the description of the genus). In addition, 44 new species *Actinopus*, all from Neotropical Region, are proposed.

Material and Methods

The examined material is deposited in the following institutions (abbreviations and curators in parenthesis): American Museum of Natural History, New York (AMNH, L. N. Sorkin); British Museum of Natural History, London (NHM, J. Beccaloni); Coleção Aracnológica de Diamantina, Diamantina (CAD, J. P. L. Guadanucci); California Academy of Sciences, San Francisco (CAS, C. Griswold); Coleção de

História Natural da UFPI, Teresina (CHNUFPI, L. S. Carvalho); Coleção Zoológica da Universidade Federal de Mato Grosso (CZUFMT, A. Chagas-Junior); Facultad de Ciencias, Montevideo (FCE, M. Simó); Instituto Butantan, São Paulo (IBSP, A. D. Brescovit); Instituto Nacional de Pesquisas da Amazônia, Manaus (INPA, A. Henriques); Lab. de Zoología de Invertebrados II, Buenos Aires (LZI, N. Ferreti); Museo Argentino de Ciencias Naturales, Buenos Aires (MACN, M. J. Ramirez); Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre (MCN, R. Ott); Museu de Ciências e Tecnologia, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre (MCTP, A. Lise); Museo del Instituto de Zoología Agrícola, Maracay (MIZA, Q. Arias); Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro (MNRJ, A.B. Kury); Museu Paraense Emílio Goeldi, Belém (MPEG, A.B. Bonaldo); Museu de Zoologia da Universidade de São Paulo, São Paulo (MZSP, R. Pinto da Rocha); Museum of Comparative Zoology, Cambridge (MCZ, G. Giribet); Oxford University Museum of Natural History, Oxford (OUMNH, A. Spooner); Staatliches Museum für Naturkunde Karlsruhe, Karlsruhe (SMNK, H. Höfer); Universidad Mayor de San Marcos (UNMSM, D. Silva); Universidade de Minas Gerais, Minas Gerais (UFMG, A. Santos); Zoologisches Museum, Berlin (ZMB, J.A. Dunlop). All material cited as deposited in IBSP was not lost in the 2009 fire (for details see Warrell *et al.* 2010). Approximated latitude and longitude data for those records that were not georeferenced were obtained in online gazetteers (Fallingrain Genomics, 2006; Miranda & Coutinho, 2004). All geographic information not extracted from vial labels was listed in brackets.

Female spermatheca was dissected, cleaned with a pin and, if necessary, immersed in clove oil for better visualization of internal structures (Levi, 1965). Male copulatory bulb were detached from the cymbium and visualized with the aid of gel alcohol for mounting in suitable positions.

The illustrations were made with a stereomicroscope Zeiss SV8, using a camera lucida. Dorsal drawings of female spermathecae and prolateral, dorsal and retrolateral drawings of male copulatory bulb were made preferentially upon the left palp; when only the right palp was available, the images were flipped for consistency.

Scanning electronic micrographs (SEM) were taken with Zeiss Leo 1450 VP, of MPEG. SEM samples were critical point dried and sputter-coated with AuPd.

All measurements are in millimeters. Measurements of length and width of the eye area and height from the fovea were taken according to Griswold & Ledford (2001).

The format of the description follows Griswold & Ledford (2001), except for the spine pattern, which follows Petrunkevitch (1925). The terminology for the structures of the copulatory bulb follows Bertani (2000), with some additions and acronyms for the height of carapace follows Griswold & Ledford (2001). Terminology for ventral setae of tarsi and metatarsi follows Pérez-Miles *et al.* (2017). All scales on automontage photos, without measures, are equivalent to 1 mm. The following abbreviations were used throughout the text: (BTA) basal tegular apophysis; (PA) paraembolyc apophysis, (ATP) apical tegular process; (DTP) dorsal tegular process; (PAc) prolateral accessory keel, (PI) prolateral inferior keel, (PS) prolateral superior keel, (Fe) femur, (Pa) patella, (Ti) tibia, (Me) metatarsi, (Ta) tarsi, (d) dorsal, (v) ventral, (p) prolateral, (r) retrolateral, (PME) posterior median eyes, (PLE) posterior lateral eyes, (ALE) anterior lateral eyes, (AME) anterior median eyes, (MOQ) median ocular quadrangle, (MOQA) median ocular quadrangle anterior length; (MOQP) median ocular quadrangle posterior length; (OAL) ocular area length, (OAW) ocular area width, (HF) height from the fovea; (SPMS) small posterior median spinnerets; (PLS) posterior laterals spinnerets.

The specimens described are conserved in alcohol, which can affect the colour compared with a fresh specimen. The cheliceral teeth are counted from outer to inner margin; discrepancies between number of teeth among left and right chelicerae were noted.

Taxonomy

Actinopus Perty, 1833

Figs 1–225, Maps 1–18

Actinopus Perty, 1833: 198 (type species by monotypy, *Actinopus tarsalis* Perty, 1833);

C. L. Koch, 1842: 98 [revalidation]; Ausserer, 1871: 138; Raven, 1985: 145, 147; Simon, 1892: 80; Mello-Leitão, 1923: 17; World Spider Catalog, 2018.

Closterochilus Ausserer, 1871: 141 (type species: *Pachyloscelis nigripes* Lucas, 1834, by original designation).

Theragretes Ausserer, 1871: 142 (type species: *Actinopus walckenaerii* Lucas, 1837, by original designation).

Diagnosis. Within Actinopodidae, species of *Actinopus* are recognized by the procurved anterior row of eyes, with the lateral eyes aligned antero-posteriorly (Fig. 4 A, F); labium elongated antero-posteriorly, without cusps on males and with an average of 15–

30 cusps on females (Fig. 4 B–C); sternal sigillae close together, positioned in a deep median common depression (Fig. 4 D). Additionally, males and females of *Actinopus* differ from those of *Missulena* by the pronounced rastellum (Fig. 4 E), sternum not rebordered (Fig. 10 C) and superior tarsal claws with a tooth and one or two denticles (Fig. 4 G–H). They differ from those of *Plesiolenia* by the flattened cheliceral apex (Fig. 10 E–F) and by the crown of robust spines on the dorsal, apical surface of the patella and tibia III (Fig. 11 A, C). Males of *Actinopus* differ from those of *Plesiolenia* by the ventral pseudoscopula in metatarsi and tarsi (Fig. 5 A) and from those of *Missulena* by the cymbium without ventral incision. Differ from males of both genera by the copulatory bulb with paraembolyc apophysis (Fig. 5 B) and with twisted keels on prolateral view of embolus (Fig. 5 C). Females of *Actinopus* differ from those of *Missulena* by tarsi I and II with strong and sharp spines and spermathecae with robusts receptacles; differ from those of both genus by the short spermathecal receptacles (Fig. 5 D).

Description. Total length (males and females) from 7 to 35.9 mm.

Carapace. Anterior prolateral angle of carapace tapered (Fig. 172 B) or subquadrate (Fig. 5 F). Carapace subquadrate in dorsal view, smooth with strongly demarcated radial grooves and wider at coxae III, anterior median ocular tubercle absent, with a delimited cephalic area and a strong inclination at fovea level, anterior margin rounded; Fovea U-shaped, strongly procurved, deep, sharply demarcated (Figs 5 E); in lateral view, thoracic area with abrupt anterior slope and gradual posterior slope. Clypeus, anteriorly less sclerotized than posteriorly, height from 1 to 1.5 times the diameter of the ALE. Anterior eyes row slightly procurve; posterior eyes row recurved in dorsal view (Fig. 5 F). No or few bristles between AME–clypeus; no or few bristles between PME–PME and PLE–PLE. Ocular quadrangle wider than long; ALE diameter bigger than that of other eyes. **Interdistances:** *Males:* PME–PME separated by more than four times the diameter of PME, ALE–AME separated by approximately twice the diameter of AME, ALE–PLE separated by less than twice the diameter of ALE, AME–PME separated by approximately twice the diameter of AME (Fig. 4 A). *Females:* PME–PME separated by approximately three times the interdistance of PME–PLE, PLE–PME separated by half the diameter of PME, AME–AME separated by half the diameter of ALE, ALE–AME separated by four times the diameter of AME, ALE–PLE separated by twice the diameter of PLE, AME–PME separated by four times the diameter of AME (Fig. 5 F). Chelicerae not geniculate, longer than half the carapace

length, with apical rastellum. Rastellum smooth, with bristles (Fig. 13 C) or spines (Fig. 108 F). Females with very conspicuous crown of thorns bordering the rastellum (Fig. 210 F). Cheliceral Teeth, in ventral view, arranged in two rows, prolateral and retrolateral. Prolateral teeth row bordered by denticles (Fig. 5 G). Labium fused to sternum. Labium and endites longer than wide. Males without labial and maxillary cuspules (Figs 4 B, 6 A); females with numerous cuspules and bristles (Fig. 5 H). Sternum longer than wide. Sternum with 6-10 hardly distinguishable sigillae, strongly fused at the center of the sternum. Pre-coxal triangles absent (Fig. 24 C).

Legs. *Males:* Long, smooth (Fig. 6 B) or covered with a few simple and sparse hairs (Figs 14 D, 31 A–D); Many prolateral spines on the sides of the patella III and IV, forming a crown spines on the dorsal surface of the patella III and tibia III (Fig. 14 A, C); Tibia, metatarsi and tarsi with filiform dorsal trichobothria, with a high bases (Fig. 6 C, D); clavate tarsal trichobothria absent. Tarsi and metatarsi III and IV with compact pseudoscopula (Fig. 6 E–F), subapical chemosensitive fissures present (Fig. 6 E–H) or absent. Inferior tarsal claws without teeth; superior tarsal claws with one tooth, one tooth and one denticle or one tooth and two denticles (Fig. 4 G–H). Subungueal tufts absent; All trochanters with a fissure. *Females:* Legs short, robust and covered by several short and strong spines, with many long bristles (Fig. 7 A), rows of strong spines present on prolateral and retrolateral surfaces of distal articles (tibia, metatarsi and tarsi) in all legs (Fig. 7 B), except leg IV, with rows only in prolateral surface; Many spines on prolateral surface of patellae III and IV, forming a crown of spines on the dorsal surface of the patella and tibia III; ventrally, spines replacing pseudoscopula on tarsi III and IV; tibia, metatarsi and tarsi with filiform dorsal trichobothria with a high bases (Fig. 7 C), trichoma with large fixation base (Fig. 7 D); Clavate tarsal trichobothria absent. Inferior and superior tarsal claws without teeth. Subungueal tufts absent. All trochanters with a fissure.

Abdomen. Long, oval, homogeneously covered with simple setae and dorsally with long simple setae (Fig. 10 A); male and female dorsal scutum, when present, restricted to the anterior half of the abdomen, whole or divided; scutal bristles with more sclerotized bases than those of ordinary tegument bristles (Fig. 13 A). Four spinnerets (Fig. 7 E). Posterior median spinnerets (PMS) small or medium-sized, with one segment; posterior lateral spinnerets (PLE) with three bigger segments; spigots types: principal ampullary fusule and secondary ampullary fusule (Fig. 7 D–E), tartiporus (Fig. 7 D) as remnants of small ampullary in some segments; apical digitiform articule of PLS.

Male Palp. Femora, patella and tibia without or with few spines. Tibia without retrolateral tibial apophysis, more thickened at the base than in the apical region (Fig. 7 H); Cymbium rounded, without spines and scopula; subtegulum subretangular, sclerotized, turned laterally (Fig. 8 A); tegulum large, sclerotized, reservoir with two or three loops in prolateral view; Distal region of tegulum with a prolateral paraembolyc apophysis; Apical region of tegulum with prolateral keels; Embolus inserted in angle relative to tegulum, sclerotized, with visible duct (Figs 9 A–C and 12 A–C). Generally, keels represented by three paraembolyc apophyses in prolateral view of embolus (*Actinopus paranensis*, *A. pinhao*, *A. ducke*, *A. hirsutus*, *A. jaboticatubas*, *A. corrugaris*, *A. pampulha*, *A. candango*, *A. paraitinga*, *A. cornelli*, *A. nattereri*, *A. rufipes*, *A. vilhena*, *A. harveyi*, *A. itapitocai*, *A. ipioca*, *A. itaquí*, *A. xingu*, *A. mesa*, *A. caxiuana*, *A. utinga*, *A. crassipes*, *A. dubiomaculatus*, *A. pusillus*, *A. emas*, *A. bocaina*, *A. laventana*, *A. osbournei*, *A. dioi*, *A. longipalpis*, *A. tutu*, *A. azaghal*, *A. itacolomi*, *A. tarsalis*, *A. castelo*, *A. parafundulus*, *A. urucui* and *A. panguana*). In *A. panguana* (Fig. 206 A–C), a dorsal tegular process (DTP); in *A. cucutaensis* (Fig. 176 A–C), *A. robustus*, *A. lomalinda*, *A. palmar* and *A. guajara*, an apical tegular process (ATP); basal tegular apophysis (BTA) absent in *A. tarsalis* and *A. castelo* (Fig. 12 A–C).

Spermathecae. Spermathecae robust and short (Fig. 217 B–D), well separated from base by a membranous region or strongly fused to it (Figs 26 D, 181 D); each receptacle without or with one or three lobes (Fig. 220 A), lobes quite sclerotized, apically covered by pores (Fig. 8 B).

Composition. Sixty-three species, forty-four of which new to science. Ten old specific names are herein considered *species inquirendae*: *A. rojasi* (Simon, 1889) and *A. valencianus* (Simon, 1889) were described based on juveniles. Types of *A. pertyi* Lucas, 1843, originally deposited at Muséum National d'Histoire Naturelle (MNHN), Paris, France, is lost. Female type of *A. rufibarbis* Mello-Leitão, 1930, deposited at Museu Nacional do Rio de Janeiro, Rio de Janeiro, Brazil, is without spermathecae and in poor condition. The types of *A. nigripes* (Lucas, 1834), *A. piceus* (Ausserer, 1871) and *A. liodon* (Ausserer, 1875), all originally deposited at Naturhistorisches Museum, Wien, Austria, and *A. harti* Pocock, 1895 originally deposited at The Natural History Museum, Londres, England, were not found and are considered lost. Specimens identified as *A. caraiba* (Simon, 1889) and *A. scalops* (Simon, 1889) were examined and photographed by J. P. Guadanucci at Muséum National d'Histoire Naturelle (MNHN),

Paris, France, but the localities on the labels are slightly different from the respective types localities reported in the original descriptions and the specimens were not labeled as types. These specimens were considered as types on this work by all prior knowledge about Simon's specimens deposited at MNHN and the totally absence of any other type evidence on labels of other specimens deposited their Paris Museum.

Key to species groups

The following key is based in males only and, besides the 11 groups here defined, includes also the 3 species (known by males) which were not included in any group.

1. Tibia III with 3 basal, dorsal spines (Fig. 208 B).....*A. loscocos*
Tibia III with a single basal, dorsal spine (Fig. 158 B).....2
- 2(1). ATP present (Fig. 176 A).....3
ATP absent (Fig. 18 A).....4
- 3(2). ATP oblique in relation to embolus (Fig. 195 A-B).....*A. concinnus*
ATP parallel in relation to embolus (Fig. 176 A-B).....*gr. cucutaensis*
- 4(2). Embolus strongly curved prolaterally (distal third not visible in dorsal view); DTP present (Fig. 206 A-C).....*A. panguana*
Embolus, at most, gently curved prolaterally, DTP absent (Fig. 18 A-C).....5
- 5(4). Base of embolus with extremely developed serrated area, composed by three rows of large cusps (Figs 198 A-C).....*A. apiacas*
Serrated area not so developed, or absent (Figs 18 A-C, 67 A-C).....6
- 6(5). PA inserted apically on bulbus, flattened and apically folded, oblique in relation to embolus (Fig. 201 A-C).....*A. jamari*

- PA inserted on the prolateral surface of bulbus, or
absent (Fig. 75 A-C).....7
- 7(6). Keels short, restricted to median sector of embolus,
represented by short prominent lamellae on prolateral
view (Figs 162 A, 165 A).....*gr. parafundulus*
Keels otherwise (Fig. 62 A).....8
- 8(7). Two embolar keels, PAc absent (Fig. 168 A-C).....9
Three embolar keels, PAc present (Fig. 35 A-C).....11
- 9(8). Tegulum and embolus thin and elongated along
longitudinal line; embolar insertion ample (Fig. 168
A-C).....*gr. reznori*
Tegulum notably wider than embolar insertion (Fig. 75
A-C).....10
- 10(9). Serrated area on embolar prolateral surface absent
or represented by at most two small cusps (Fig. 15 A-
C).....*gr. apalai*
Serrated area represented by three or more cusps (Fig.
32 A-C).....*gr. pinhao*
- 11(8). Embolus, as seen from dorsal view, inserted on
tegulum at a 90° angle (Fig. 9 B).....*gr. tarsalis*
Embolar insertion, as seen from dorsal view, otherwise
(Fig. 153 A-C).....12
- 12(11). Sternal sigillae converging to the middle but
separated (Fig. 133 C).....*gr. osbournei*
Sternal sigillae fused in the middle of sternum (Fig.
196 C).....13
- 13(12). Small spiders, total length less than 13 mm.....14
Large spiders, total length more than 17 mm and less
than 36 mm.....15
- 14(13). Serrated area on prolateral surface of embolus
small (Fig. 143 A-C) or, when large, represented by
sparse small denticles (Fig. 153 A-D).....*gr. tutu*

Serrated area on prolateral surface of embolus large, densely covered by relatively large denticles (Fig. 124 A-C)	gr. <i>crassipes</i>
15(13). Serrated area on prolateral surface of embolus reduced or absent (Fig. 67 A)	gr. <i>nattereri</i>
Serrated area on prolateral surface of embolus well developed (Fig. 32 A)	gr. <i>pinhao</i>

Group *tarsalis*

Diagnosis. The group *tarsalis* is recognized by the following combination of characters: Medium total length; legs and palps without coloration patterns; bulbus with three keels; serrated area distal to PAc on prolateral view of copulatory bulb absent or small; BTA absent; embolus inserted in a right angle; embolar apex flattened and expanded, arrow-shaped in dorsal view.

Species included. *Actinopus tarsalis* Perty, 1833 and *Actinopus castelo* n. sp.

***Actinopus tarsalis* Perty, 1833**

Fig. 9 A–C, Map 1

Actinopus tarsalis Perty, 1833: 198, pl. 39, fig. 6 (holotype ♂, Piauí, Brasil, MNHN, not located); C.L. Koch, 1842: 101, fig. 753; Simon, 1892: 80, figs 80, 82; Lucas *et al.*, 1978/1979: 133, figs 3-6; Miglio *et al.*, 2012: 376, figs 1-12; World Spider Catalog, 2018.

Pachyloscelis tarsalis; Lucas, 1837: 377.

Sphodros tarsalis; Walckenaer, 1842: 437.

Pachyloscelis crassipes; Mello-Leitão, 1943: 149.

Pachyloscelis luteipes; Mello-Leitão, 1943: 149.

Actinopus crassipes; Mello-Leitão, 1943: 149.

Actinopus luteipes; Mello-Leitão, 1943: 149.

Diagnosis. Males of *Actinopus tarsalis* differ from those of all species of the genus, except *A. castelo*, by the copulatory bulb without BTA and by the robust embolar base, inserted basally at a right angle (90°); embolar apex flattened and expanded, arrow-shaped in dorsal view. Differ from *A. castelo* by PAc inconspicuous at prolateral

surface, embolus shorter, tegulum wider than in *A. castelo* and PA more conspicuous (Fig. 9 A-C, see Miglio *et al.*, 2012, figs 1–12).

Description. See Miglio *et al.* (2012), p. 376.

***Actinopus castelo* new species**

Figs 10–12, Map 1

Type material. Holotype. Male from 05° 13' 48.8" S 41° 41' 59.0" W, Fazenda Bonito, ECB Rochas Ornamentais, Castelo do Piauí, Piauí, Brazil, 12.ii.2006, F. S. Rodrigues leg. (MPEG 22277). **Paratypes:** BRAZIL. Piauí: Castelo do Piauí, ECB Rochas Ornamentais, Fazenda Bonito, Plot Cerrado Rupestre, 05° 13' 48.8" S 41° 41' 59.0" W, 10♂, 12.ii.2006, F. S. Rodrigues leg. (MPEG 2400, 1♂ removed for SEM); Plot Campo Sujo, 05° 14' 07.1" S 41° 41' 16.3" W, 9♂, 10.ii.2006, F. S. Rodrigues leg. (MPEG 2399); Caracol, Parque Nacional da Serra das Confusões, Plote PPBio Semiárido, 09° 13' 16" S 43° 29' 21" W, 1♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 202). Bahia: Paulo Afonso, Estação Ecológica Raso da Catarina, 09° 39' 58.1" S 38° 28' 15.1" W, 4♂, 22-23.v.2012, I. L. F. Magalhães & J. L. Chavari leg. (UFMG 11681); 5♂, 22-23.V.2012, I. L. F. Magalhães & J. L. Chavari leg. (IBSP 162680).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus castelo* differ from those of all other species of the genus, except *A. tarsalis*, by the copulatory bulb without BTA and by the robust embolar base, inserted basally at a right angle (90°); embolar apex flattened and expanded, arrow-shaped in dorsal view (Fig. 12 A-C). Differ from *A. tarsalis* by the PAc developed on prolateral view of embolus, tegulum thinner, PA less conspicuous and by the presence of a large *scutum* covering almost all the dorsal surface of abdomen (Fig. 10 A).

MALE (MPEG 22277): Total length 9.75; Carapace, long 5.25; wide 5.125. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 10 B). With five short bristles between AME-clypeus. With two bristles between ALE-ALP and many short and weak bristles between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae

more fused than others (Fig. 10 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 10 E, F). Chelicera with nine denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth (Fig. 10 D). Patella III and tibia III with distal crown of well-developed thorns, on two articles, interrupted in the middle (Fig. 11 A, B). Patella III and IV with spines on prolaterodorsal face (Fig. 11 A, C). Tibia IV without spines on dorsal surface and with two visible rows of trichobothrias (Fig. 11 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 40% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochanters, femora, patellae, tibiae, metatarsi and tarsi yellowish-brown; Abdomen pale brown (Fig. 9 A). **Eyes: Diameters:** PME 0.12, PLE 0.2, ALE 0.24, AME 0.28; MOQ: Length 0.72, front width 2.36, back width 2; **Interdistances:** PME-PME 1.28, PLE-PME 0.16, AME-AME 0.16, ALE-AME 0.44, ALE-PLE 0.36, AME-PME 0.44. **Ocular area:** OAL 11.625, OAW 8.125, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 2.125; Labium: long 1.125; wide 1; Chelicera: long 2.375; wide 1.625; Sternum: long 3.5; wide 2.875; Abdomen: long 4.75; wide 3.75. **Leg measurements:** I: Fe 5.625/ Pa 1.625/ Ti 3.625/ Me 4.625/ Ta 2.75/ total 18.25. II: 5.25/ 2.25/ 3.25/ 4.75/ 2.75/ 18.25. III: 4.125/ 2.375/ 2.5/ 4.625/ 2.875/ 16.5. IV: 5.625/ 2.625/ 4.875/ 5.375/ 2.625/ 21.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v2-4-6, d0, p0, r0-4-6; Me v9-14-12, d0, p2-2-2, r1-4-3; Ta v6-10-15, d0, p1-1-2, r3-5-7. II – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v1-4-5, d0, p0, r0-4-6; Me v4-12-11, d0, p0-0-4, r4-2-3; Ta v7-8-9, d0, p0-3-3, r2-4-7. III – Fe v0, d0, p0, r0; Pa v0, d11-14-25, p0, r0-0-3; Ti v0-0-4, d1-0-14, p0-0-2, r0-0-3; Me v0-4-6, d2-2-1, p3-2-4, r4-5-7; Ta v0, d0, p2-3-5, r2-4-5; IV – Fe v0, d0, p0, r0; Pa v0, d21-14-6, p0, r0; Ti v0-0-4, d0, p0, r0; Me v7-8-11, d0, p1-1-2, r0-0-1; Ta v0, d0, p0-2-5, r0-1-1. **Palp:** PA well developed, embolus with three small keels (PAc, PI and PS); keels evident in dorsal and prolateral views, barely visible retrolaterally. BTA absent; prolateral surface of tegulum serrated next the base of the embolus and a big swelling on tegulum surface, on the same direction of PA, but more dorsally (Fig. 12 A-C).

Distribution. BRAZIL. Piauí: Castelo do Piauí and Caracol. Bahia: Paulo Afonso (Map 1).

Group *apalai*

Diagnosis. The group *apalai* is recognized by the following combination of characters: Medium total length; PA pronounced, continuous to PI; two embolar keels, PAc absent; prolateral surface of embolus without serrated area, represented by two cusps distal to PAc.

Species included. *Actinopus apalai* n. sp.; and *Actinopus mairinquensis* n. sp.

***Actinopus apalai* new species**

Figs 13–15, Map 2

Type material. Holotype. Male from 00° 49' 58.65601" S 52° 39' 29.69148" W, Jari, Almeirim, Pará, Brazil, 28.ii.2005, T. Gardner & M. A. Ribeiro Junior leg. (MPEG 2276). **Paratypes:** BRAZIL. *Pará*: Almeirim, Jari, 0° 42' 42.64747" S 52° 40' 0.86094" W, Área 56, 1♂, 01.ii.2005 (MPEG 2249); 11.ii.2005 (MPEG 2250); 11.ii.2005 (MPEG 13820, 13821); 1° 11' 28.30705" S 52° 38' 51.85530" W, Bituba, 1♂, 07.iii.2005 (MPEG 2247, 2248); 4° 49' 58.65601" S 52° 39' 29.69148" W, Área 14, 1♂, 07.iii.2005 (MPEG 2262, 2263, 13816, 13818, 13819); 28.ii.2005 (MPEG 13814), all collected by T. Gardner.

Etymology. The specific name is an apposition name in honor of the indigenous ethnic group Apalai, which has remnants in the east side of Tumucumaque Mountains National Park, Almeirim, Pará, Brazil.

Diagnosis. Males of *A. apalai* are characterized by PA continuous to PI (Fig. 15 A–B); pronounced PA and BTA inconspicuous (Fig. 15 A–C); without serrated area, represented by the two cusps distals to PI (Fig. 15 A, C). They differ from those of *A. mairinquensis* by BTA in the middle of the width of tegulum; PA more developed; Serrated area reduced (Fig. 15 A, C) and dorsal abdominal *scutum* divided in two parts, the basal larger and more reborded than distal scutum (Fig. 13 A).

MALE (holotype): Total length 14.55; Carapace, long 7.22; wide 6.66. Carapace anterior part slightly tapered. Anterior eye row slightly procurved, posterior row recurve (Fig. 13 B). Few short bristles between posterior eyes, and between lateral eyes-edge of carapace; Short bristles forming a row in the edge of quillum. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 13 C).

Rastellum protuberant, inverted V-shaped, hirsute, with 1-3 spines in prolateral part (Fig. 13 E-F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth decreasing in distal-proximal way. Teeth in retrolateral row subequals (Fig. 13 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 14 A-B). Patella III and IV with spines on prolaterodorsal face (Fig. 14 A, C). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 14 D). Ventral pseudoscapulae occupying 75% of the length of tarsi I and 100% of II, III and IV. Pseudoscapula compact only in 10% of distal part of tarsi I, 25% of II, and 100% of tarsi III and IV. Carapace and chelicerae redish brown; Sternum yellowish-brown; Legs redish-brown; Tibia of palp and cymbium yellowish-brown; Abdomen pale gray, with two dorsal scuta with points of inserctions of bristles more sclerotized than in the rest of abdomen (Fig. 13 A). Anterior *scutum* bigger and more reborded than posterior. **Eyes:** **Diameters:** PME 0.27, PLE 0.38, ALE 0.4, AME 0.5; MOQ: Length 1.2, front width 1.38, back width 2.2; **Interdistances:** PME-PME 1.7, PLE-PME 0.11, AME-AME 0.16, ALE-AME 0.66, ALE-PLE 0.5, AME-PME 1.2. **Ocular area:** OAL 4.5, OAW 3.7, and IF 2.2. **Body:** Clypeus: 0.14; Fovea: 2.4; Labium: long 1.55; wide 1.22; Chelicera: long 3.55; wide 2; Sternum: long 4.7; wide 3.44; Abdomen: long 7.77; wide 4.88. **Leg measurements:** I: Fe 6/ Pa 3/ Ti 4.8/ Me 5.7/ Ta 3.3/ total 23. II: 5.6/ 2.1/ 3.5/ 4.3/ 2.5/ 18.2. III: 4.4/ 2.3/ 2.6/ 4.6/ 2.6/ 16.7. IV: 6.4/ 2.6/ 4.8/ 5.7/ 3.8/ 23.6. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-4, d0, p0, r0-0-1; Me v4-9-4, d0, p1-3-2, r2-4-3; Ta v0-3-4, d0, p1-4-4, r1-5-7. II - Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-5, d0, p0, r0-3-2; Me v4-7-6, d0, p1-2-3, r2-3-4; Ta v4-7-5, d0, p2-4-5, r2-4-4. III - Fe v0, d0, p0, r0; Pa v0, d2-4-16, p2-4-7, r0-0-3; Ti v0-1-2, d1-1-14, p0-2-2, r0-1-4; Me v3-3-6, d0, p2-2-4, r2-4-5; Ta v0, d0, p3-8-6, r2-8-4; IV - Fe v0, d0, p0, r0; Pa v0, d0-0-1, p12-13-5, r0; Ti v1-2-5, d0, p2-1-2, r0; Me v2-6-6, d0-0-1, p0-0-1, r0-1-2; Ta v0, d0, p2-9-8, r2-5-7. **Palp:** BTA developed, prolateral, with two keels (PS and PI) demarcated in prolateral and dorsal faces. PS demarcated on retrolateral face. PS and PI evident. Robust tegulum, long PA, continuous to PI (Fig. 15 A–C).

VARIATION.

MALES (n=10): **Eyes:** **Diameters:** PME 0.22-0.44, PLE 0.22-0.5, ALE 0.44-0.55, AME 0.44-0.55; MOQ: Length 1.2-1.5, front width 1.2-1.4, front width 1.2-2.5; **Interdistances:** PME-PME 1.7-2, PLE-PME 0.11, AME-AME 0.16-0.27, ALE-AME 0.44-0.77, ALE-PLE 0.44-0.77, AME-PME 1.1-1.56. Ocular area: OAL 1.2-1.4, OAW

1.2-2.5, and IF 1.2-1.5. **Body:** Total length: 10.9-18.5; Carapace: Length 5.5-10.4; wide 5-7.2; Clypeus: 0-0.1; Fovea: 1.6-3.1; Labium: Length 1.3-1.7; Wide 1.2-2.3; Chelicera: Length 3-5.2; Wide 1.7-3.2; Sternum: Length 4.4-5.3; Wide 2.5-4.2; Abdomen: Length 5.1-7.1; wide 3.6-5.1. **Legs:** I: Fe 5.3-6.8/ Pa 2-3.1/ Ti 3.6-5.4/ Me 3.8-6.4/ Ta 2.1-3.4/ total 16.8-25.1. II: 5-6.8/ 2-3/ 3.7-5.3/ 4-6/ 2.3-3.4/ 13-24.5. III: 3.9-5.8/ 2.2-3/ 2.5-3.8/ 4-5.7/ 2.4-3.4/ 15-21.7. IV: 5.7-8.2/ 2.2-3.2/ 4.2-6.6/ 4.1-6.4/ 2.6-3.8/ 18.8-28.2.

Distribution. BRAZIL. Pará: Almeirim (Map 2).

Examined material: BRAZIL. Pará: Almeirim, Jari, 0° 36' 14,72106" S 52° 39' 9,44026" W, Área 86, 1♂, 03.iv.2005 (MPEG 2256, 2257); 0° 42' 42,64747" S 52° 40' 0,86094" W, Área 56, 1♂, 01.ii.2005 (MPEG 2249); 11.ii.2005 (MPEG 2252, 2254); 2♂, 11.ii.2005 (MPEG 2255); 3♂, 11.ii.2005 (MPEG 2251); 5♂, 11.ii.2005 (MPEG 2253); 1° 1' 32,45885" S 52° 54' 17,27678" W, Quaruba, 1♂, 03.iv.2005 (MPEG 2246); 4° 49' 58,65601" S 52° 39' 29,69148" W, Área 14, 1♂, 07.iii.2005 (MPEG 13816, 13817); 4♂, 28.ii.2005 (MPEG 2275); 5♂, 07.iii.2005 (MPEG 2260, 2265); 6♂, 28.ii.2005 (MPEG 2268); 7♂, 07.iii.2005 (MPEG 2259, 2264); 8♂, 28.ii.2005 (MPEG 2270); 8♂ e 1j, 28.ii.2005 (MPEG 2274); 10♂, 07.iii.2005 (MPEG 2258); 12♂, 28.ii.2005 (MPEG 2273); 12♂ e 1j, 28.ii.2005 (MPEG 2272); 14♂, 28.ii.2005 (MPEG 2269); 07.iii.2005 (MPEG 2261, 2267); 15♂, 28.ii.2005 (MPEG 2271); 17♂, 07.iii.2005 (MPEG 2266); 21♂, 28.ii.2005 (MPEG 13815); 22♂, 28.ii.2005 (MPEG 2277), all collected by T. Gardner.

Actinopus mairinquensis new species

Figs 16–18, Map 2

Type material. Holotype. Male from [23° 32' 48.91" S 47° 11' 02.79" W], Mairinque, São Paulo, Brazil, 22.iv.1992, C. S. de Oliveira leg. (IBSP 110484). **Paratype:** BRAZIL. São Paulo: São Paulo, [23° 32' 56" S 46° 38' 20" W], 1♂, iii.1977, C. Aporeian leg. (IBSP 104126).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. mairinquensis*, as *A. apalai*, are characterized by the PA continuous to PI (Fig. 18 A); pronounced PA and BTA inconspicuous (Fig. 18 A-C);

serrated area, represented by few cusps distal to PI (Fig. 18 A-B). Differ from those of *A. apalai* by BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; PA reduced; serrated area also reduced, but more developed than *A. apalai* (Fig. 18 A, C); dorsal abdominal *scutum* absent (Fig. 16 A).

MALE (IBSP 110484): Total length 11.875; Carapace, long 5.125; wide 5. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 16 B). With many short bristles in a row on the border between AME-clypeus. Without bristles between ALE-ALP and many short and weak bristles between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 16 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 16 E-F). Chelicera with eleven denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth (Fig. 16 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 17 A-B). Patella III and IV with spines on prolaterodorsal face (Fig. 17 A, C). Tibia IV without spines on dorsal surface and with two visible rows of trichobothria (Fig. 17 D). Ventral pseudoscapulae occupying 25% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish-dark-brown; Abdomen gray (Fig. 16 A). **Eyes:** **Diameters:** PME 0.2, PLE 0.28, ALE 0.44, AME 0.32; MOQ: Length 0.92, front width 2.4, back width 2.28; **Interdistances:** PME-PME 1.44, PLE-PME 0.08, AME-AME 0.2, ALE-AME 0.56, ALE-PLE 0.4, AME-PME 0.32. **Ocular area:** OAL 3.75, OAW 3, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 2; Labium: long 1.25; wide 1; Chelicera: long 3; wide 1.5; Sternum: long 3.625; wide 3; Abdomen: long 6.5; wide 5. **Leg measurements:** I: Fe 4.75/ Pa 2.25/ Ti 2.75/ Me 2.75/ Ta 2/ total 14.5. II: 4.75/ 2.25/ 2.75/ 3.375/ 1.75/ 14.875. III: 3.75/ 2.25/ 2.125/ 3.5/ 1.875/ 13.5. IV: 5.25/ 2.125/ 4/ 4/ 2.375/ 17.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-5, d0, p0, r0; Me v1-3-2, d0, p1-3-2, r1-3-3; Ta v1-3-0, d0, p1-3-2, r3-3-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-4, d0, p0, r1-7-6; Me v1-3-2, d0, p0-1-1, r0-7-4; Ta v0-3-3, d0, p1-1-2, r0-3-3. III – Fe v0, d0, p0, r0; Pa v0, d3-5-19, p0-0-3, r0-0-3; Ti v0-0-3, d0, p0-0-1, r0-1-4; Me v0-1-5, d0, p1-1-1, r0-0-2; Ta v0, d0, p0-0-3, r0; IV – Fe v0, d0, p0, r0; Pa v0, d8-10-7, p0, r0; Ti v2-3-3, d0, p0-0-1, r0; Me v2-1-2, d0, p1-3-2, r0-0-

1; Ta v0, d0, p0-3-2, r0. **Palp:** BTA developed, dorsal; With two keels (PS and PI) demarcated in prolateral and dorsal faces. Only PS demarcated on retrolateral face. PS and PI developed and PA continuous to PI. Robust tegulum and thin embolus (Fig. 18 A-C).

Distribution. BRAZIL. São Paulo: São Paulo and Mairinque (Map 2).

Group *fractus*

Diagnosis. The group *fractus* is recognized by the following combination of characters: Medium total length; tegulum thin, with proximal third of the embolus narrow and long; embolus with only two keels (PS and PI). Females may be recognized by the single spermathecae, strongly fused to base, with pore distribution widespread by basal membrane.

Species included. *Actinopus fractus* Mello-Leitão, 1920; *Actinopus obidos* n. sp.; and *Actinopus buritiensis* n. sp.

***Actinopus fractus* Mello-Leitão, 1920**

Figs 19–21, Map 3

Actinopus fractus Mello-Leitão, 1920: 58 (holotype ♂, [20° 31' 59.9982" S 47° 23' 59.9994" W], Franca, São Paulo, Brazil, MZSP 323, examined); Mello-Leitão, 1923: 21; World Spider Catalog, 2018.

Diagnosis. Males of *A. fractus* differ from those of other species belonging to the group *fractus*, by the BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; and by the more developed PA (Fig. 21 A–C).

MALE (IBSP 114535): Total length 15.75; Carapace, long 7.47; wide 7.92. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 19 B). Few short bristles between AME–clypeus and posterior eyes. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 19 C). Rastellum protuberant, subtriangular, hirsute, with a row of strong spines on apice (Fig. 19 E–F). Subungual sulc with small denticles along the prolateral row of teeth. Denticles in the middle of prolateral row of teeth. Teeth in both margins, subequals in size (Fig. 19 D). Patella III and tibia III with distal crown of well-

developed thorns, interrupted on the middle on patella III and not interrupted in the middle on tibia III (Fig. 20 A–B). Tibia III with recurve crown of spines (Fig. 20 B). Patellae IV with spines on prolaterodorsal face along all length of article (Fig. 20 C). Tibia IV without spines on prolateral surface (Fig. 20 D). Ventral pseudoscapulae diffusae, in two parallel rows, occupying 70% of the length of tarsi I, 50% of II and compacts, occupying 100% of tarsi III and IV. Carapace and chelicerae dark-brown; Sternum redish brown; legs dark-redish-brown; Tibia of palp slightly yellow; and abdomen dark-gray (Fig. 19 A). **Eyes: Diameters:** PME 0.25, PLE 0.21, ALE 0.47, AME 0.34; **MOQ:** Length 1.22, front width 1.02, back width 2.34; **Interdistances:** PME–PME 1.96, PLE–PME 0.18, AME–AME 0.24, ALE–AME 1.06, ALE–PLE 0.66, AME–PME 0.74. **Ocular area:** OAL 5.83, OAW 4.36, and IF 3.28. **Body:** Clypeus: 0.38; Fovea: 3.11; Labium: long 2.21; wide 1.61; Chelicera: long 4.72; wide 2.53; Sternum: long 5.33; wide 4.87; Abdomen: long 8.07; wide 6.81. **Leg measurements:** I: Fe 7.66/ Pa 3.68/ Ti 3.46/ Me 5.14/ Ta 2.64/ total 22.58. II: 7.22/ 3.66/ 3.63/ 5.26/ 2.75/ 22.52. III: 6.07/ 3.87/ 2.8/ 5.71/ 2.98/ 21.43. IV: 8.39/ 3.95/ 5.65/ 6.6/ 3.11/ 27.7. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0; Me v0-3-5, d0, p0-1-3, r0-1-4; Ta v0-2-1, d0, p0-2-2, r1-3-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-5-1, d0, p0, r0-1-3; Me v0-3-5, d0, p0-2-3, r0-0-2; Ta v0, d0, p0-2-2, r3-7-5. III – Fe v0, d0, p0, r0; Pa v0, d5-10-15, p0, r0-0-3; Ti v0, d1-0-12, p0-0-2, r0-1-3; Me v0-0-2, d3-4-4, p1-0-2, r0-2-1; Ta v0, d0, p0, r0; IV – Fe v0, d0, p0, r0; Pa v0, d17-7-4, p3-4-0, r0; Ti v0, d0, p0, r0; Me v1-0-2, d0, p0-1-3, r0; Ta v0, d0, p1-5-7, r0. **Palp:** BTA poor developed, dorsally. Without PAc. Distal third of embolus with a sharp inclination in relation to tegulum. PA poor pronounced (Fig. 21 A–C).

VARIATION.

MALES (n=4): Eyes: Diametres: PME 0.22–0.25, PLE 0.21–0.41, ALE 0.42–0.54, AME 0.34–0.45; **MOQ:** Length 1.22–1.38, front width 1.02–1.21, back width 2.34–2.72; **Interdistances:** PME–PME 1.96–2.25, PLE–PME 0.13–0.18, AME–AME 0.22–0.39, ALE–AME 0.89–1.07, ALE–PLE 0.57–0.7, AME–PME 0.67–0.8. **Ocular area:** OAL 5.02–5.83, OAW 3.75–4.54, and IF 2.61–3.28. **Body:** Total length: 12.87–19.31; Carapace: Length 6.36–7.77; wide 6.93–8.55; Clypeus: 0.24–0.38; Fovea: 3–3.15; Labium: Length 2–2.45; Wide 1.58–1.74; Chelicera: Length 3.95–5.32; Wide 2.2–2.53; Sternum: Length 5.17–7.45; Wide 4.43–6.14; Abdomen: Length 5.61–10.62; Wide 5.27–10.26. **Leg measurements:** I: Fe 6.93–7.98/ Pa 3.23–3.96/ Ti 3.46–4.48/ Me

5.01–5.6/ Ta 2.42–2.67/ total 21.36–24.53. II: 7.15–7.5/ 3.3–3.87/ 3.6–4.3/ 4.7–5.62/ 2.45–2.75/ 21.36–23.74. III: 5.8–6.39/ 3.59–3.87/ 2.67–3.24/ 5.47–6.22/ 2.98–3.31/ 20.85–22.97. IV: 7.86–8.92/ 3.78–4.29/ 5.46–6.56/ 6.26–6.84/ 3.11–3.71/ 26.84–30.32.

Distribution. BRAZIL. São Paulo: São Carlos, Itirapina, and Brotas.

Examined material. BRAZIL: São Paulo: São Carlos, 1♂, [22° 31' 59.9982" S 51° 58' 59.9988" W] x.1982, E. J. Godoy leg. (IBSP 114535); Itirapina, Estação Ecológica de Itirapina, 22°15' S 47°49' W, 1♂, 14–21.v.2001, C. Bertim *et al.* leg. (IBSP 114457); Brotas, [22° 16' 59.9982" S 48° 7' 0.0006" W], Região de Campo Cerrado, 1♂, 01.vii.1999, E. O. Oliveira leg. (IBSP 107918).

Actinopus obidos new species

Figs 22–24, Map 3

Type material. Holotype. Male from 00° 37.331' S 55° 43.529' W, Estação Ecológica do Grão Pará (Centro), 900m da trilha 3 (ponto 12), Óbidos, Pará, Brazil, 10–31.i.2009, M. S. Hoogmoed, T. C. S. Ávila-Pires & P.L.V. Peloso leg. (MPEG 22274). **Paratypes:** BRAZIL: Pará: Óbidos, 900m da trilha 3 (ponto 12), Estação Ecológica do Grão Pará (Centro), 00° 37.331' S 55° 43.529' W, 4♂, 10–31.i.2009, M. S. Hoogmoed, T. C. S. Ávila-Pires & P.L.V. Peloso leg. (MPEG 22272, one removed for MEV); 1♂ (IBSP); 1♂ (CAD); Almeirim, Reserva Biológica do Maicuru, Área do Acampamento, 00° 49.718' S 53° 55.882' W, 1♀, 19.x–5.xi.2009, M. S. Hoogmoed, T. C. S. Ávila-Pires & W. Rocha leg. (MPEG 22273).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus obidos* differ from those of almost all other species of the genus by the absence of PAc. Differ from *A. fractus* by the undeveloped PA and by the position of BTA, placed medially on the tegular prolateral surface, and from *A. buritiensis* by the wider tegulum, with less conspicuous BTA (Fig. 26 A–C). Females differ from all others species by the single spermathecae, strongly fused to base, with pore distribution widespread through basal membrane (Fig. 26 D).

MALE (MPEG 22274): Total length 10.62; Carapace, long 4.3; wide 4.5. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 22 B). Without bristles between AME–clypeus. One short and weak bristle between ALE–PLE and 16 short and weak bristles between posterior eyes-fovea. Sternum with eight sigillae fused in the middle and strongly demarcated, two distal sigillae more fused than others (Fig. 22 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines on apice (Fig. 22 E–F). Chelicera with four denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth and one denticle between two basal megateeth. Retrolateral row of teeth with five megateeth and one denticle between two basal megateeth (Fig. 22 C). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 23 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 23 A, C). Tibia IV without spines on prolateral surface and with trichobothrias in two irregular visible rows (Fig. 23 D). Ventral pseudoscapulae occupying 30% of the length of tarsi I, 50% of II and 100% of III and IV. pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicerae redish brown; Sternum, coxae, trochantera, femora, patellae Tibia, metatarsi and tarsi yellowish brown; Tibia of palp and cymbium pale yellow than others articles and abdomen pale gray (Fig. 22 A). **Eyes:** **Diameters:** PME 0.3, PLE 0.325, ALE 0.35, AME 0.35; MOQ: Length 1, front width 2.25, back width 2.075; **Interdistances:** PME–PME 1.125, PLE–PME 0.075, AME–AME 0.2, ALE–AME 0.375, ALE–PLE 0.375, AME–PME 0.325. **Ocular area:** OAL 3.32, OAW 2.4, and IF 2.8. **Body:** Clypeus: 0.2; Fovea: 1.9; Labium: long 1.06; wide 0.93; Chelicera: long 2.7; wide 1.3; Sternum: long 3.125; wide 2.625; Abdomen: long 5.2; wide 4. **Leg measurements:** I: Fe 4.75/ Pa 2/ Ti 2.75/ Me 3.875/ Ta 2.12/ total 15.5. II: 4.62/ 2.12/ 2.87/ 3.87/ 2.25/ 15.75. III: 3.5/ 2.12/ 1.75/ 3.75/ 2.12/ 13.25. IV: 5/ 2.25/ 3.75/ 4.25/ 2.5/ 17.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-5-8, d0, p0-0-2, r0; Me v4-6-11, d0, p1-3-3, r0-3-4; Ta v3-2-4, d0, p2-3-4, r4-4-6. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-3-6, d0, p0, r0-2-3; Me v4-7-11, d0, p1-2-3, r2-3-3; Ta v3-2-3, d0, p3-4-6, r4-8-7. III – Fe v0, d0, p0, r0; Pa v0, d7-9-28, p0-0-4, r0-0-4; Ti v0-0-6, d0-1-13, p0-0-3, r0-0-3; Me v1-4-8, d4-5-5, p1-2-3, r1-3-4; Ta v0, d0-0-2, p2-6-7, r0-6-7; IV – Fe v0, d0, p0, r0; Pa v0, d12-10-5, p0-1-1, r0; Ti v1-2-6, d0, p0, r0; Me v4-5-7, d0-0-2, p0-1-0, r0; Ta v0, d0-0-2, p2-6-10, r3-3-5. **Palp:** PA poor developed, embolus with two keels (PI and PS). Basal surface of tegulum smooth. BTA small in prolateral view and in the middle of tegulum width; prolateral

surface of tegulum with two denticles next the base of the embolus; embolar bases thinner (Fig. 26 A–C).

FEMALE (MPEG 22273): Total length 23.62; Carapace, long 10.75; wide 9.75. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve. A lot of short bristles and one long bristle between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace (Fig. 24 B). Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 24 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 24 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and four teeth, the first one between two distal teeth and others on basal area. Retrolateral row of teeth with six megateeth and three teeth between four basal megateeth (Fig. 24 D). Patella III with distal developed crowns of thorns and tibia III with distal interrupted crown of thorns (Fig. 25 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 25 C). Tibia IV without spines on prolateral surface and with many long bristles on prolateral surface (Fig. 25 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, tarsi and palp redish brown, and abdomen pale brown with a big portion of depigmented areas in dorsal view (Fig. 24 A). 22 labial cuspules, 126 in right maxilla and 145 in left. **Eyes: Diameters:** PME 0.4, PLE 0.45, ALE 0.65, AME 0.3; **MOQ:** Length 1.8, front width 4.3, back width 4.35; **Interdistances:** PME–PME 2.65, PLE–PME 0.25, AME–AME 0.5, ALE–AME 1.35, ALE–PLE 1, AME–PME 1.05. **Ocular area:** OAL 8, OAW 6.7, and IF 3.62; **Body:** Clypeus: 0.37; Fovea: 4.375; Labium: long 1.62; wide 1.37; Chelicera: long 4.75; wide 3.62; Sternum: long 7.5; wide 6.12; Abdomen: long 12.5; wide 10.12. **Leg measurements:** I: Fe 5.37/ Pa 3.75/ Ti 2.37/ Me 3.12/ Ta 1.62/ total 16.25. II: 5.62/ 3.87/ 2.62/ 3.5/ 1.5/ 17.12. III: 5.62/ 4.5/ 2/ 4/ 1.37/ 17.5. IV: 7.625/ 4/ 4/ 4.87/ 1.25/ 21.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-0-1, d0, p0-3-6, r1-14-11; Me v0-0-2, d0, p10-9-9, r9-10-13; Ta v0-0-3, d0, p2-3-3, r5-4-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-0-1, r12-49-38; Me v0-2-0, d0, p7-12-10, r16-19-15; Ta v3-0-3, d0, p6-7-4, r4-5-4. III – Fe v0, d0, p0, r0; Pa v0, d0-0-23, p0-0-3, r0-0-12; Ti v0, d1-0-13, p0-0-2, r7-12-19; Me v0-2-9, d0-2-3, p2-1-0, r9-17-18; Ta v15-16-18, d0, p1-3-3, r7-15-9; IV – Fe v0,

d0, p0, r0; Pa v0, d15-11-6, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0, p0-1-2, r0; Ta v8-17-12, d0, p4-11-8, r0-0-3. **Spermathecae:** Represented by a single seminal receptacles strongly fused to base, long as wide, with short duct. The single receptacle with two lobes, right lobe on dorsal view bigger than left lobe. Pore distribution reaching base and along of membrane area (Fig. 26 D).

VARIATION.

MALES (n=10): **Eyes:** **Diameters:** PME 0.2–0.3, PLE 0.25–0.32, ALE 0.3–0.4, AME 0.25–0.4; **MOQ:** Length 0.77–1, front width 2.02–2.25, back width 1.8–2.07; **Interdistances:** PME–PME 1.02–1.12, PLE–PME 0.075–0.12, AME–AME 0.1–0.2, ALE–AME 0.32–0.62, ALE–PLE 0.2–0.37, AME–PME 0.27–0.35. **Ocular area:** OAL 2.96–3.32, OAW 2.2–2.5, and IF 1.12–2.8. **Body:** Total length: 8–10.62; Carapace: long 3.68–4.5; wide 4–4.5; Clypeus: 0.16–0.2; Fovea: 1.68–1.9; Labium: long 1–1.12; wide 0.84–1; Chelicera: long 0.96–2.7; wide 0.48–1.37; Sternum: long 2.75–3.62; wide 2.24–2.62; Abdomen: long 1.6–5.5; wide 1.2–4. **Leg measurements:** I: Fe 3.87–4.75/ Pa 1.75–2/ Ti 2.62–2.75/ Me 2.87–3.87/ Ta 2–2.25/ total 13.75–15.5. II: 3.75–4.62/ 1.75–2.12/ 2.62–2.87/ 3.37–3.87/ 1.5–2.25. III: 3–3.5/ 1.87–2.12/ 1.75–1.87/ 2.87–3.85/ 1.75–2.12/ 11.87–13.25. IV: 4.37–5/ 2–2.25/ 3.5–3.75/ 3.75–4.25/ 2.12–2.5/ 15.75–17.75.

Distribution. BRAZIL. Pará: Óbidos and Almeirim (Map 3).

Actinopus buritiensis new species

Figs 27–29, Map 3

Type material. Holotype. Male from [55° 50' S 15° 23' W], Buriti, Chapada dos Guimarães, Mato Grosso, Brazil, xii.1992, L. F. Silva leg. (MCTP 2940).

Note. The holotype lacks both legs II.

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. buritiensis*, as in *A. obidos*, present the BTA positioned medially on the tegular prolateral surface, and PA inconspicuous on prolateral view. They Resemble other species with only two embolar keels (PS and PI) by the small

serrated area along embolus, with few cusps; Tegulum thin and proximal third of the embolus narrow and long. Differ from males of *A. obidos* by the thinner and elongated tegulum and by the well-developed BTA (Fig. 29 A–C).

MALE (MCTP 2940): Total length 9; Carapace, long 5.375; wide 5.25. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 27 B). With many short bristles between AME-clypeus. With one bristles between ALE-ALP and many short and weak bristles between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 27 C). Rastellum protuberant, inverted V-shaped, hirsute, with a row of strong spines in apice (Fig. 27 E–F). Chelicera with 14 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth and two denticles, one between the three distal and four distal and other between two basal megateeth (Fig. 27 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 28 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 28 A, C). Tibia IV without spines on dorsal surface (Fig. 28 D). Ventral pseudoscopulae occupying 40% of the length of tarsus I and 100% of III and IV. Pseudoscopula of tarsi I with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp paler than other articles; Abdomen gray (Fig. 27 A). **Eyes: Diameters:** PME 0.24, PLE 0.24, ALE 0.32, AME 0.44; MOQ: Length 0.84, front width 2.56, back width 2.44; **Interdistances:** PME–PME 1.52, PLE–PME 0.12, AME–AME 0.12, ALE–AME 0.6, ALE–PLE 0.32, AME–PME 0.44. **Ocular area:** OAL 3.875, OAW 3, and IF 2.25. **Body:** Clypeus: 0.125; Fovea: 2.25; Labium: long 1.25; wide 1; Chelicera: long 2.25; wide 1.625; Sternum: long 3.5; wide 3.125; Abdomen: long 4.125; wide 2.75. **Leg measurements:** I: Fe 4.625/ Pa 2.375/ Ti 3.5/ Me 4/ Ta 2.25/ total 16.75. III: 4/ 2.375/ 2.5/ 3.875/ 2.75/ 15.5. IV: 5.625/ 2.375/ 4.75/ 4.625/ 3.125/ 20.5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-8, d0, p0-0-2, r0; Me v7-7-2, d0, p3-3-3, r1-1-1; Ta v4-3-3, d0, p2-2-2, r0-1-2. III – Fe v0, d0, p0, r0; Pa v0, d7-9-25, p1-0-20, r0-0-2; Ti v0, d0, p0-1-2, r0-1-3; Me v1-2-4, d0, p1-0-2, r0-2-4; Ta v0, d0, p0-2-4, r0-4-4. IV – Fe v0, d0, p0, r0; Pa v0, d12-8-9, p0, r0; Ti v0, d0, p0-1-0, r0; Me v0-1-3, d0-0-1, p1-2-7, r0; Ta v0, d0, p1-2-7, r0-2-6. **Palp:** PA poor developed, embolus with two keels (PI and PS). Basal surface of tegulum smooth. BTA small in

prolateral view and in the middle of tegulum width; prolateral surface of tegulum with two denticles next PA and three denticles next the base of the embolus; embolar bases thinner (Fig. 29 A–C).

Distribution. BRAZIL. Mato Grosso: Chapada dos Guimarães: Buriti (Map 3).

Group *pinhao*

Diagnosis. The group *pinhao* is recognized by the following combination of characters: Medium total length; serrated area distal to PAc large; BTA present; embolus with three long keels. Females are recognized by the spermathecae with two asymmetric receptacles, with 75%–100% of each receptacle filled by pores.

Species included. *Actinopus pinhao* n. sp.; *Actinopus ducke* n. sp.; *Actinopus hirsutus* n. sp.; *Actinopus jaboticatubas* n. sp.; *Actinopus confusus* n. sp.; *Actinopus pampulha* n. sp.; *Actinopus candango* n. sp.; *Actinopus paraitinga* n. sp.; and *Actinopus cornelli* n. sp.

***Actinopus pinhao* new species**

Figs 30–32, Map 4

Type material. Holotype. Male from [25° 42' 32.5764" S 51° 38' 1.7988" W], Usina Hidroelétrica de Segredo, Pinhão, Paraná, Brazil, R. Pinto-da-Rocha leg. (MZSP 14718).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. pinhao* resemble those of *A. hirsutus* by the hirsute legs (Figs 31 A–D, 37 A–D) and those of *A. ducke*, *A. hirsutus* and *A. jaboticatubas* by wide tegulum with robust basal tegular apophysis, placed medially on prolateral tegular surface (Figs 32 A–C). They are readily recognized by the following combination of characters: serrated area positioned distal to PAc (Fig. 32 A, B); PA continuous to PAc (Fig. 32 A); PA conspicuous; BTA developed (Fig. 32 A–C). Additionally, they differ from those of all other species on the group *pinhao* by the proximal surface of BTA with a swelling (Fig. 32 A).

MALE (MZSP 14718): Total length 13.27; Carapace, long 6.18; wide 6.83. Carapace anterior part tapering and slightly rounded. Anterior eye row procurved, posterior row recurve (Fig. 30 B). Many bristles on ocular area, between AME–clypeus, between lateral eyes–edge of carapace, between lateral eyes and on interdistances PME–PME and PLE–PLE. Sternum with eight inconspicuous sigillae fused in the middle, two distal sigillae more fused than others (Fig. 30 C). Rastellum protuberant, subtriangular, hirsute, without spines in apice (Fig. 30 E–F). Denticles arranged in two rows along the prolateral row of teeth. Retrolateral row of teeth decreasing in distal-proximal way, with two denticles in the edge of basal part (Fig. 30 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 31 A–B). Patela III with spines on distal part of prolateral face. Patela III and IV with spines on prolaterodorsal face, and one spine dorsal (Fig. 31 A, C). Tibia IV without spines on dorsal surface (Fig. 31 D). Ventral pseudoscapulae occupying 100% of the length of tarsi III and IV and 33% of metatarsi IV. Hirsute legs. Carapace and chelicerae dark-redish-brown; Sternum and legs redish-brown; Abdomen pale gray (Fig. 30 A). **Eyes:** **Diameters:** PME 0.29, PLE 0.43, ALE 0.41, AME 0.34; MOQ: Length 1.2, front width 2.11, back width 0.96; Interdistances: PME–PME 1.8, PLE–PME 0.12, AME–AME 0.28, ALE–AME 0.75, ALE–PLE 0.54, AME–PME 0.68. Ocular area: OAL 5.03, OAW 3.7, and IF 4.92. Body: Clypeus: 0.26; Fovea: 3.09; Labium: long 1.83; wide 1.39; Chelicera: long 3.98; wide 2.19; Sternum: long 4.18; wide 4.03; Abdomen: long 6.48; wide 5.48. **Leg measurements:** I: Fe 6.69/ Pa 2.56/ Ti 3.53/ Me 4.45/ Ta 3.01/ total 20.24. II: 6.55/ 2.79/ 4.3/ 5.01/ 3.06/ 21.71. III: 5.18/ 2.98/ 2.64/ 5.48/ 3.41/ 19.69. IV: 6.94/ 3.08/ 5.58/ 6.14/ 4.09/ 25.83. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0, d0, p0, r0; Ta v0, d0, p0-1-0, r0-3-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0, d0, p0, r0-0-3; Ta v0, d0, p0-2-3, r1-2-6. III – Fe v0, d0, p0, r0; Pa v0, d0-2-27, p0, r0-0-4; Ti v0, d0-0-16, p0, r0; Me v0-0-2, d0, p1-0-4, r0-0-2; Ta v0-0-8, d0, p0-3-4, r0-0-5; IV – Fe v0, d0, p0, r0; Pa v0, dx, p3-4-1, r0; Ti v0, dx, p0, r0; Me v1-1-2, dx, p1-2-11, r0-0-3; Ta v0-0-5, d15-17-9, p2-7-9, r1-6-8. **Palp:** BTA developed and placed medially on prolateral tegular surface, embolus with three keels (PAC, PS and PI) on dorsal and retrolateral faces. PAC on retrolateral face, continuos to distal part of embolus. PS inconspicuous on the dorsal face (Fig. 32 B). Serrated area poor developed and distal to PAC, evident on three views, continuos to proximal part of PAC. Tegulum robust, with PA developed and proximal part of tegulum, above to PA with a swelling (Fig. 32 A–C).

Distribution. BRAZIL. Paraná (Map 4).

***Actinopus ducke* new species**

Figs 33–35, Map 4

Type material. Holotype. Male from 2° 58' 5.9952" S 59° 55' 49.9836" W, Reserva Florestal Adolpho Ducke, Manaus, Amazonas, Brazil, 1993, Wollscheid & Curd leg. (MCN 24987). **Paratypes:** BRAZIL. Amazonas: Manaus, Reserva do Km 41, 02° 26' S 59° 46' W, 1♂, 05.viii.1996, G. Gascon leg. (IBSP 110498); Reserva Florestal Adolpho Ducke, 2° 58' 5.9952" S 59° 55' 49.9836" W, 3♂, viii–ix.1993, Wollscheid & Curd leg. (INPA 3512); 15♂, ix.2010 (INPA 6124).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. ducke* resemble those of *A. pinhao*, *A. hirsutus*, *A. jaboticatubas* and *A. confusus* by the serrated area positioned distal to PAc (Fig. 32 A–B); PA continuous to PAc (Fig. 35 A–C), except in *A. hirsutus*. They resemble *A. paranensis*, *A. hirsutus* and *A. jaboticatubas* by the wider tegulum with robust BTA, placed medially on prolateral tegular surface (Fig. 35 A–C). Differ from those of *A. pinhao* and *A. hirsutus* by legs with few bristles and from all other species of the group by presence of slots above PI, in prolateral tegular surface and pigmentation spots above PA on retrolateral view (Fig. 35 A–C).

MALE (MCN 24987): Total length 19.25; Carapace, long 8.375; wide 7.5. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve almost without interdistance AME–ALE (Fig. 33 B). With short bristles between AME–clypeus. With one long bristle between ALE–ALP and many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 33 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 33 E–F). Chelicera with six denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with five megateeth and two denticles between the three basal megateeth (Fig. 34 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 34 A–B). Patela IV with spines on

prolaterodorsal face (Fig. 34 C). Tibia IV without spines on dorsal surface (Fig. 34 D). Ventral pseudoscapulae occupying 20% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish brown; Tibia of palp paler than other articles; Abdomen pale brown (Fig. 33 A). **Eyes: Diameters:** PME 0.28, PLE 0.32, ALE 0.52, AME 0.4; MOQ: Length 1.28, front width 2.84, back width 2.72; **Interdistances:** PME–PME 1.72, PLE–PME 0.02, AME–AME 0.24, ALE–AME 0.64, ALE–PLE 0.56, AME–PME 0.52. **Ocular area:** OAL 5, OAW 4.75, and IF 2.25. **Body:** Clypeus: 0.375; Fovea: 2.625; Labium: long 1.875; wide 1.375; Chelicera: long 3.75; wide 1.875; Sternum: long 5.25; wide 4.125; Abdomen: long 9.125; wide 7.375. **Leg measurements:** I: Fe 7.75/ Pa 3.375/ Ti 5/ Me 5.25/ Ta 30.5/ total 51.875. II: 7.25/ 3.375/ 4.75/ 5.375/ 2.875/ 23.625. III: 6.625/ 3.625/ 3.75/ 5.25/ 3.125/ 22.375. IV: 9.125/ 3.875/ 7.375/ 6.375/ 3.5/ 30.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-1, d0, p0, r0-0-2; Me v4-7-5, d0, p0-0-1, r4-4-7; Ta v0-2-6, d0, p0-3-4, r4-8-9. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-3, d0, p0, r0-2-6; Me v7-13-15, d0, p0-0-3, r4-7-8; Ta v3-7-8, d0, p2-8-9, r4-6-8. III – Fe v0, d0, p0, r0; Pa v0, d6-8-25, p0-0-2, r0-0-5; Ti v0, d1-0-10, p0-0-4, r0-0-3; Me v11-6-5, d0, p1-4-5, r1-4-5; Ta v0, d0, p6-7-6, r7-9-4; IV – Fe v0, d0, p0, r0; Pa v0, d8-6-2, p3-3-1 r0; Ti v0, d0, p0, r0; Me v5-6-5, d0, p0-1-5, r1-1-4; Ta v0, d0, p5-5-5, r2-5-7. **Palp:** PA poor developed, embolus with three keels (Pac, PI and PS). Prolateral surface of tegulum with slots above PI. BTA developed and placed medially on prolateral tegular surface; serrated area developed, positioned distal to prolateral accessory keel and next the base of the embolus; embolar bases wider (Fig. 35 A–C).

Distribution. BRAZIL. Amazonas: Manaus (Map 4).

Actinopus hirsutus new species

Figs 36–38, Map 4

Type material. Holotype. Male from [28° 15' 40.19" S 52° 24' 30.01" W], Flona, Passo Fundo, Rio Grande do Sul, Brazil, 1-8.ii.2009, R. Moraes leg. (MCN). **Paratypes:** BRAZIL. Rio Grande do Sul: Itaara, [29° 37' 35.47" S 53° 46' 08.53" W], 1♂, xii.2006, A. A. Lise leg. (MCTP 20487); iii.2007, A. A. Lise *et al.* leg. (MCTP 20483, 20484, 20485, 20486).

Etymology. The specific name is a Latin adjective meaning hairy, referring to the hirsute legs, a very notable and uncommon character in *Actinopus*.

Diagnosis. Males of *A. hirsutus* differ from those of all other species of *Actinopus*, except *A. pinhao*, by the hirsute legs. They also resemble *A. pinhao*, *A. ducke*, *A. jaboticatubas* and *A. confusus* by the serrated area positioned distal to PAc (Fig. 38 A–C); resemble *A. pinhao*, *A. ducke* and *A. jaboticatubas* by wide tegulum with robust BTA, placed medially on prolateral tegular surface (Fig. 38 A). They differ from all other species of the group *pinhao* by the PA continuous to PI (Fig. 38 A).

MALE (MCN): Total length 17.125; Carapace, long 6.875; wide 6.75. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 36 B). With many short bristles between AME–clypeus. With one long bristle between ALE–ALP and many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 36 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 36 E–F). Chelicera with 14 denticles along the prolateral row of teeth and five along the retrolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth (Fig. 36 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 37 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 37 A, C). Tibia IV without spines on dorsal surface (Fig. 37 D). Ventral pseudoscapulae occupying 30% of the length of tarsus I, 50% of II, 100% of III and IV and 20% of metatarsus IV. Pseudoscapula of tarsi I and II and metatarsus IV with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Hirsute legs (Fig. 37 A–D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish brown; Tibia of palp paler than other articles; Abdomen pale brown (Fig. 36 A). Eyes: Diameters: PME 0.32, PLE 0.44, ALE 0.52, AME 0.36; MOQ: Length 1.28, front width 3.28, back width 2.96; Interdistances: PME–PME 1.76, PLE–PME 0.08, AME–AME 0.36, ALE–AME 0.84, ALE–PLE 0.56, AME–PME 0.64. Ocular area: OAL 5, OAW 4.125, and IF 3.375. Body: Clypeus: 0.375; Fovea: 2.75; Labium: long 1.75; wide 1.375; Chelicera: long 4; wide 2.25; Sternum: long 4.125; wide 3.875; Abdomen: long 8.625; wide 5.875. Leg measurements: I: Fe 6/ Pa 3.125/ Ti 4.5/ Me 4.75/ Ta 3/ total

21.375. II: 7/ 3.25/ 4.375/ 5.25/ 3.25/ 23.125. III: 5.875/ 3.375/ 3.375/ 5.875/ 3.25/ 21.75. IV: 7.75/ 3.25/ 6.125/ 5/ 4/ 26.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0-0-0, d0, p0-3-2, r0; Ta v0-1-1, d0, p0-1-1, r0-1-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0-3-3; Me v0-1-1, d0, p0-1-5, r0-0-1; Ta v0, d0, p0-1-3, r1-3-4. III – Fe v0, d0, p0, r0; Pa v0, d2-9-25, p1-3-3, r0-0-4; Ti v0-0-0, d1-0-16, p0-0-3, r0-0-1; Me v0, d1-0-2, p1-3-2, r1-0-2; Ta v0, d0, p0-3-7, r0-0-4; IV – Fe v0, d0, p0, r0; Pa v0-1-1, d16-12-7, p0, r0; Ti v0-1-1, d0, p0, r0; Me v0-1-1, d0-0-1, p0-1-7, r0-0-2; Ta v0, d0, p2-10-12, r1-8-9. **Palp:** PA developed, embolus with three keels (PAc, PI and PS). Robust tegulum. BTA developed and placed dorsally in relation to a middle longitudinal line; serrated area developed, positioned distal to prolateral accessory keel and next the base of the embolus; embolus wide and with rounded apice (Fig. 38 A–C).

Distribution: BRAZIL. Rio Grande do Sul: Passo Fundo and Itaara (Map 4).

Actinopus jaboticatubas new species

Figs 39–41, Map 4

Type material. Holotype. Male from [19° 30' S 43° 44' W], Condomínio Vila Monte Verde, Jaboticatubas, Minas Gerais, Brazil, 23.x.2002, R. Chemicatti leg. (IBSP 113186).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. jaboticatubas* resemble *A. pinhao*, *A. hirsutus*, *A. ducke* and *A. confusus* by serrated area positioned distal to PAc (Fig. 41 A–C); PA continuous to PAc (Fig. 41 A), except in *A. hirsutus*. Resemble *A. pinhao*, *A. hirsutus* and *A. ducke* by wider tegulum; with robust BTA, placed medially in relation to a middle longitudinal line (Fig. 41 A–C). Differ from *A. pinhao* and *A. hirsutus* by legs with few bristles, as in most part of the species of genus. Differ from all other species of group by a combination between wider tegulum with embolus thinner and delicate; PI bigger than other keels and bending over the PAc; and many cusps on retrolateral surface below embolar bases (Fig. 41 C).

MALE (IBSP 113186): Total length 18.625; Carapace, long 7.375; wide 7.375. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 39

B). Without bristles between AME–clypeus. Without bristles between ALE–ALP and some short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 39 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 39 E–F). Chelicera with 15 denticles widespread along the prolateral row of teeth. Prolateral row of teeth with six spaced megateeth. Retrolateral row of teeth with six megateeth and two denticles between the three basal megateeth (Fig. 39 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 40 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 40 A, C). Tibia IV without spines on dorsal surface (Fig. 40 D). Ventral pseudoscopulae occupying 70% of the length of tarsus I, 80% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae and tibiae redish-brown; Metatarsi and tarsi paler than other articles; Tibia of palp yellow, paler than other articles; Abdomen pale brown (Fig. 39 A). **Eyes:** **Diameters:** PME 0.32, PLE 0.36, ALE 0.48, AME 0.36; MOQ: Length 1.32, front width 3.6, back width 3.16; **Interdistances:** PME–PME 2.12, PLE–PME 0.16, AME–AME 0.32, ALE–AME 1.08, ALE–PLE 0.72, AME–PME 0.76. **Ocular area:** OAL 5.25, OAW 4.25, and IF 2.75. **Body:** Clypeus: 0.375; Fovea: 3; Labium: long 1.5; wide 1.25; Chelicera: long 4; wide 2.125; Sternum: long 5.125; wide 4.25; Abdomen: long 10; wide 7.125. **Leg measurements:** I: Fe 8.25/ Pa 3.25/ Ti 4.875/ Me 5.625/ Ta 3.375/ total 25.375. II: 7.75/3.125/4.625/5.375/3.125/24. III: 5/2.875/3.25/5.625/3/19.75. IV: 6.25/3.375/3.5/6.25/2.875/22.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-3-6, d0, p0, r0; Me v4-4-6, d0, p1-1-1, r0-0-2; Ta v1-3-3, d0, p0-1-2, r0-0-1. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-3-4, d0, p0, r0-0-4; Me v3-2-3, d0, p1-1-3, r1-2-3; Ta v2-3-5, d0, p2-3-3, r3-2-4. III – Fe v0, d0, p0, r0; Pa v0, d6-8-26, p0-0-3, r0-0-2; Ti v0-0-6, d1-0-16, p0-0-3, r0-0-4; Me v0-0-2, d0, p1-0-2, r0-2-4; Ta v0-0-1, d0, p1-1-1, r0-5-3; IV – Fe v0, d0, p0, r0; Pa v0, d16-8-4, p0, r0; Ti v0-0-2, d0, p0, r0; Me v1-1-2, d0, p1-1-0, r0; Ta v0, d0, p1-6-6, r0-1-1. **Palp:** PA developed, embolus with three keels (PAc, PI and PS). Retrolateral surface of tegulum with cups below embolar base. BTA developed and placed dorsally in relation a middle longitudinal line; serrated area developed, positioned distal to PAc, next and below the base of embolus; embolar bases thin (Fig. 41 A–C).

Distribution. BRAZIL. Minas Gerais: Jaboticatubas (Map 4).

***Actinopus confusus* new species**

Figs 42–44, Map 4

Type material. Holotype. Male from 9° 13' 16" S 43° 29' 21" W, PPBio Semiárido, Parque Nacional da Serra das Confusões, Caracol, Piauí, Brazil, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 234). **Paratypes:** BRAZIL. Piauí: Caracol, [9° 13' S 43° 29' W], Parque Nacional da Serra das Confusões, 2♂ (MPEG); Parque Nacional da Serra das Confusões, PPBio Semiárido, 9° 13' 16" S 43° 29' 21" W, 1♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 24, 27, 28, 237); 2♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 2, 4); 4♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 23, 244); 6♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 243).

Etymology. The specific name, a latin adjective meaning confounded, was inspired by the type locality name, Serra das Confusões, which stands for Confusion Montains.

Diagnosis. Males of *A. confusus* resemble those of *A. jaboticatubas* by the serrated area distal to PAc (Fig. 44 A–C); PA developed and continuous to PAc (Fig. 44 A, C); thin embolus and BTA placed medially on prolateral tegular surface (Fig. 44 A). Differ from those of *A. pinhao* and *A. jaboticatubas* by the long PS on dorsal view (Fig. 44 B) and from all other species of the group *pinhao* by the short keels prolateral view and tegular region with keels, with a basal swelling above PAc on prolateral view (Fig. 44 A).

MALE (CHNUFPI 234): Total length 19.375; Carapace, long 7.25; wide 7.25. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 42 B). Without bristles between AME–clypeus. With one short bristle between ALE–ALP and without bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 42 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 42 E–F). Chelicera with 14 denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with six megateeth and one denticle in the middle of the row (Fig. 42 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 43 A–B). Patela III and IV with spines on

prolaterodorsal face (Fig. 43 A, C). Tibia IV without spines on dorsal surface (Fig. 43 D). Ventral pseudoscopulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp yellowish-brown, paler than other articles. Abdomen pale brown (Fig. 42 A). **Eyes:** **Diameters:** PME 0.2, PLE 0.28, ALE 0.44, AME 0.4; MOQ: Length 1.16, front width 3.52, back width 2.96; **Interdistances:** PME–PME 2.04, PLE–PME 0.12, AME–AME 0.24, ALE–AME 1.04, ALE–PLE 0.68, AME–PME 0.68. **Ocular area:** OAL 5, OAW 4.125, and IF 2.375. **Body:** Clypeus: 0.375; Fovea: 3.125; Labium: long 1.5; wide 1.25; Chelicera: long 4.125; wide 2; Sternum: long 4.875; wide 4.875; Abdomen: long 10.125; wide 6.875. **Leg measurements:** I: Fe 7.75/ Pa 3.25/ Ti 4.625/ Me 5.25/ Ta 3.5/ total 24.375. II: 7.5/ 3.25/ 4.625/ 5.75/ 3.5/ 24.625. III: 5.75/ 3.25/ 3.375/ 6.625/ 3.375/ 22.375. IV: 7.625/ 3.625/ 6.25/ 7/ 3.875/ 28.375. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-5-6, d0, p0-0-1, r0; Me v6-4-7, d0, p1-2-3 r0; Ta v1-5-7, d0, p1-2-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-4, d0, p0, r0-3-4; Me v4-4-3, d0, p0-2-2, r3-6-5; Ta v1-4-3, d0, p2-4-4, r4-9-11. III – Fe v0, d0, p0, r0; Pa v0, d4-10-25, p0, r0-0-3; Ti v0-0-4, d1-0-19, p0-0-2, r0-0-3; Me v0-5-4, d0-0-1, p1-4-4, r1-3-8; Ta v0-3-12, d0, p1-0-6, r0-9-12; IV – Fe v0, d0, p0, r0; Pa v0, d15-20-10, p0, r0; Ti v0-0-2, d0, p0, r0; Me v3-4-4, d0, p3-0-3, r0; Ta v0, d0, p2-8-12, r1-9-13. **Palp:** PA developed, embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; Serrated area developed, positioned distal to PAc and next the base of the embolus; Tegulum elongated and smooth, and embolar bases thinner. Tegular region with keels, with a basal swelling below PAc on prolateral view (Fig. 44 A–C).

Distribution: BRAZIL. Piauí: Caracol, Parque Nacional da Serra das Confusões (Map 4).

Actinopus pampulha new species

Figs 45–49, Map 4

Type material. Holotype. Male from 20° 02' 23" S 43° 34' 29" W, Povoado de Paiol, Serra do Baú, Santa Bárbara, Minas Gerais, Brazil, 24–30.x.2008, B. V. S. Pimenta & M. W. E. Faria leg. (UFMG 5389). **Paratypes:** BRAZIL. Minas Gerais: Marliéria,

Parque Estadual Rio Doce, Trilha Macuco, 19° 42'30" S 42° 42' 30" W, 1♂, 9.i.2005, S. S. P. Almeida leg. (MNRJ 6791); Santana do Riacho, 19° 10' 8" S 43° 42' 57" W, 1♀, 14.v.2011, P. H. Martins leg. (UFMG 11263); Belo Horizonte, Bairro Minas Caixa, 19° 48' 31.67" S 43° 57' 22.65" W, 2♀, 24.v.2010 (UFMG 6064); João Monlevade, 19° 48' 34.09" S 43° 10' 25.75" W, 2♀, 13.iii.2001, W. E. Souza leg. (UFMG 6062); Estação Ecológica da Universidade Federal de Minas Gerais (UFMG), 19° 52' 38" S 43° 58' 16" W, 1♂, 2.x.2006 (UFMG 9984); 19° 58' S 43° 58' W, 1♂, xi.1996 (UFMG 578); Estação Ecológica da Universidade Federal de Minas Gerais (UFMG), Bambuzal [19° 52' 38"S 43° 58' 16"W], 09–16.v.2013, B. N. Castro *et al.* leg. (UFMG 16847); Reserva da Universidade Federal de Minas Gerais, Campus da Pampulha, 19° 52' S 43° 58' O, 1♂, vii.2000, E. S. S. Álvares leg. (IBSP 1144360); viii.2000, E. S. S. Álvares leg. (IBSP 114441); x.2000, C. S. Azevedo, E. P. Machado, E. S. S. Álvares & M. Maria leg. (IBSP 110736); xii.2000, E. S. S. Álvares leg. (IBSP 114434); 3♂, ii.2000, E. S. S. Álvares leg. (IBSP 114437); 28.viii.2000, E. S. S. Álvares leg. (IBSP 114454, 1♂ removed for SEM – pedir doação IBSP-MPEG); Ouro Preto, Parque Estadual do Itacolomi, 20° 22' S 32° 32' W, 1♂, 11–13.iv.2008, K. P. Santos *et al.* leg. (UFMG 2161); Estação Ecológica do Tripuí, 1246m, 20° 22' 69.3" S 43° 32' 56.1" W, 1♀, 08.i.2005 (IBSP); Estação Ecológica do Tripuí, [20° 23' 45" S 43° 34' 33" W], 1♂, 2001, H. Guimarães leg. (IBSP 114438, 114439, 114446, 114447). São Paulo: São José dos Campos, [22° 54' 00.00" S 54° 58' 00.00" W], São Francisco Xavier, 1♂, 07.i.1998, R. Gouveia leg. (IBSP 110481); Itatinga, 23° 06' 08.26" S 48° 36' 55.41" W, EMATER, Fazenda Santa Irene, 1♂, 22.v.1997, A. de Almeida leg. (IBSP 108288); Divisa Mairiporã/Atibaia, [23° 19' 06.14" S 46° 35' 14.00" W], 1♂, 02.iii.1994, L. Izidoro leg. (IBSP 110578); Cajamar, [23° 21' 23.44" S 46° 52' 36.73" W], 1♂, 26.xi.2004, F. W. Gluckstern leg. (IBSP 111068); São Paulo, Horto Florestal, [23° 27' 41" S 46° 38' 20" W], 1♂, 03.vi.1993 (IBSP 110573); Jandira, [23° 31' 42.88" S 46° 54' 11.92" W], 1♂, 24.i.2005, J. A. Coogan leg. (IBSP 111089); São Paulo, [23° 32' 56" S 46° 38' 20" W], 1♂, x.1959, L. Nogueira Neto leg. (IBSP 103524); 1994, Gérhard leg. (IBSP 110553); 15.iv.1996, V. Barsaline leg. (IBSP 112968); HUB, [23° 33' S 46° 39' W], 1♂ (IBSP 110557); Parque dos Príncipes, [23° 34' 7" S 46° 46' 14" W], 1♂, 30.xi.2004, P. S. Paulino leg. (IBSP 111070); Parque do Estado, [23° 39' 14" S 46° 37' 23" W], 1♂, 26.viii–1º.viii.2002, J. R. Valvassori leg. (IBSP 113353); Itapecerica da Serra, [23° 43' 02.85" S 46° 50' 58.04" W], 1♂, 26.i.2001, M. C. da Cunha leg. (IBSP 108731);

26.v.1999, A. dos Santos leg. (IBSP 110479); Juquitiba, [23° 55' 52.78" S 47° 04' 09.09" W], 1♂, ii.1987, M. Serzedello leg. (IBSP 104929).

Etymology. The specific name is an adjective referring from the a natural reserve at Campus da Pampulha, Universidade Federal de Minas Gerais, from where most of the specimens described bellow were collected.

Diagnosis. Males of *A. pampulha* resemble those of *A. candango* and *A. cornelli* by the wide tegulum and by the short, flattened embolus. The also share with *A. paraitinga* an extension of the embolar serrated area with many cusps below embolar base, visible in retrolateral view. Differs by all other species of the group *pinhao* by an ellongated PI, which course reflect the PAc course, along the entire length of embolus on dorsal surface (Fig. 49 A–C). Females differ from those of other species of the group by the presence of two or three similarly lengthed lobes on each receptacle (Fig. 49 D).

MALE (UFMG 5389): Total length 18.125; Carapace, long 8.625; wide 8.125. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 45 B). With few short bristles between AME-clypeus. With few short and weak bristles between ALE-ALP and between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle (Fig. 45 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 45 E-F). Chelicera with 23 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with five megateeth and two denticles between the three basal megateeth (Fig. 45 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 46 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 46 A–C). Tibia IV without spines on dorsal surface (Fig. 46 D). Ventral pseudoscapulae occupying 20% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish-dark-brown; Tibia of palp orange-brown, paler than other articles; Abdomen pale brown (Fig. 45 A). **Eyes: Diameters:** PME 0.36, PLE 0.44, ALE 0.52, AME 0.4; **MOQ:** Length 1.4, front width 3.44, back width 3.2; **Interdistances:** PME–PME 1.88, PLE–PME 0.12, AME–AME 0.32, ALE–AME 0.96,

ALE–PLE 0.68, AME–PME 0.6. **Ocular area:** OAL 5.75, OAW 5, and IF 3. **Body:** Clypeus: 0.625; Fovea: 2.625; Labium: long 1.625; wide 15; Chelicera: long 4; wide 2.5; Sternum: long 5.375; wide 4.375; Abdomen: long 8.625; wide 6.125. **Leg measurements:** I: Fe 7.5/ Pa 3.625/ Ti 3.75/ Me 5/ Ta 3.125/ total 23. II: 7/ 3.625/ 4.25/ 5.125/ 3.125/ 23.125. III: 5.875/ 3.875/ 3.625/ 6/ 3.5/ 22. IV: 8/ 3.875/ 6.5/ 6.75/ 3.625/ 28.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0; Me v1-2-3, d0, p0, r0; Ta v0, d0, p0-2-2, r0-2-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-1, d0, p0, r0; Me v0-0-1, d0, p0-1-1, r0; Ta v1-2-3, d0, p0-2-2, r1-2-3. III – Fe v0, d0, p0, r0; Pa v0, d0-0-20, p0-0-1, r0; Ti v0, d1-0-12, p0, r0; Me v0-0-2, d0-0-1, p1-1-1, r0-0-1; Ta v0, d0, p1-2-5, r0-2-6; IV – Fe v0, d0, p0, r0; Pa v0, d15-12-1, p0, r0; Ti v0, d0, p0, r0; Me v1-1-0, d0-0-1, p1-1-2, r0; Ta v0, d0, p1-6-5, r0-0-3. **Palp:** Wide, short tegulum; PA developed, embolus with three keels (PAC, PI and PS). BTA developed, placed medially on prolateral tegular surface; Serrated area developed, positioned distal to PAC and next the base of embolus, with an extension of serrated area with many cusps below embolar bases on retrolateral view; embolar base flattened (Fig. 49 A–C).

FEMALE (UFMG 6064): Total length 19.875; Carapace, long 8.125; wide 8. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 47 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 47 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 47 E–F). Chelicera with 24 denticles along the prolateral row of teeth. Prolateral row of teeth with seven megateeth. Retrolateral row of teeth with seven megateeth, five denticles along the basal part of retrolateral row and two denticles at inner and outer side of second distal megateeth (Fig. 47 D). Patella III with distal crown of thorns and tibiae III with distal developed curve crown of thorns (Fig. 48 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 48 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 48 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp reddish brown; Abdomen pale brown with a big basal portion of depigmented area in

dorsal surface (Fig. 47 A). 18 labial cuspules, 104 in right maxilla and 96 in left. **Eyes:** **Diameters:** PME 0.24, PLE 0.4, ALE 0.48, AME 0.2; MOQ: Length 1.32, front width 4, back width 3.68; **Interdistances:** PME–PME 2.24, PLE–PME 0.2, AME–AME 0.36, ALE–AME 1.2, ALE–PLE 0.6, AME–PME 0.84. **Ocular area:** OAL 7, OAW 5.125, and IF 3.625. **Body:** Clypeus: 0.625; Fovea: 3.875; Labium: long 1.875; wide 1.75; Chelicera: long 4.375; wide 3.5; Sternum: long 5.375; wide 4.875; Abdomen: long 10; wide 7.375. **Leg measurements:** I: Fe 4.5/ Pa 3.125/ Ti 1.875/ Me 2.875/ Ta 1.625/ total 14. II: 4.75/ 3.125/ 2/ 3/ 1.75/ 14.625. III: 4.375/ 3.625/ 1.5/ 2.75/ 1.375/ 13.625. IV: 5.875/ 3.75/ 3.5/ 3.75/ 1.875/ 18.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-2-2, d0, p0-0-3, r2-2-1; Me v1-1-3, d0, p4-5-8, r3-8-3; Ta v2-2-3, d0, p3-3-2, r5-2-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-1, d0, p0, r28-37-44; Me v1-3-2, d0, p1-4-4, r24-12-5; Ta v2-4-2, d0, p3-5-4, r4-3-1. III – Fe v0, d0, p0, r0; Pa v0, d0-1-28, p0, r0-0-10; Ti v0, d1-0-22, p0-0-2, r6-15-8; Me v0-0-3, d6-5-10, p0, r0-4-16; Ta v13-15-12, d2-4-2, p0-6-8, r10-10-5; IV – Fe v0, d0, p0, r0; Pa v0, d21-8-5, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0, p0-1-4, r0; Ta v4-10-8, d0, p0-5-3, r0-0-2. **Spermathecae:** Represented by two seminal receptacles strongly fused to base, longer than wide, with short duct. Receptacles with two or three lobes, assymmetric on numbers of lobes and shape. Lateral walls of spermathecae describing a delicate lateral swelling (Fig. 49 D).

Distribution. BRAZIL. São Paulo: São José dos Campos, São Francisco Xavier, Itatinga, Mairiporã/Atibaia, Cajamar, Sorocaba, São Paulo, Itapequerica da Serra and Juquitiba. Minas Gerais: Santa Bárbara, Santana do Riacho, Belo Horizonte, João Monlevale, Marliéria and Ouro Preto. Sergipe: Canindé de São Francisco (Map 4).

Examined material (burned in fire). BRAZIL. Sergipe: Canindé de São Francisco, Rio São Francisco, [09° 37' 34" S 37° 45' 22" W], Usina Hidroelétrica Xingó, 1♂, 16.XI.2000 (IBSP 114465). Minas Gerais: Belo Horizonte, Bosque Sossego, [19° 52' S 43° 58' W], 1♂, II.2001, E. S. S. Álvares leg. (IBSP 114432); 3♂, VIII.2000, E. S. S. Álvares leg. (IBSP 114442); Ouro Preto, Estação Ecológica do Tripuí, [20° 23' 45" S 43° 34' 33" W], 1♂, 2001, H. Guimarães leg. (IBSP 114430); 2♂, 2001, H. Guimarães leg. (IBSP 114435). São Paulo: Sorocaba, [23° 30' 22.42" S 47° 27' 21.28" W], 1♂, B. E. Gisinger (IBSP 110582); São Paulo, Parque do Estado, [23° 39' 14" S 46° 37' 23" W], 1♂, 26.VIII-1º.VIII.2002, J. R. Valvassori leg. (IBSP 113352); 10-25.X.2003, J. R.

Valvassori leg. (IBSP 113338); Parque Estadual do Jaraguá, [23° 27' 34" S 46° 45' 57" W], 1♂, 06.XI.2004, R. P. Indicatti leg. (IBSP); Represa do Guarapiranga, Ilha Parque dos Eucaliptos, [23° 43' 52" S 46° 45' 15" W], 1♂, R. P. Indicatti leg. (IBSP).

***Actinopus candango* new species**

Figs 50–54, Map 4

Type material. Holotype. Male from [15° 49' 57.18" S 47° 50' 51.61" W], Lago Paranoá, Norte, 70000, Brasília, Distrito Federal, Brazil, xi.1977, C. T. S. Filho leg. (MZSP 22109). **Paratypes:** BRAZIL. Distrito Federal: Brasília, Sobradinho, Área da Marinha, [15° 38' 00.00" S 47° 49' 00.00" W], 1♂, 29–31.x.1999, G. G. Montigelli leg. (IBSP 108003); xi.2005, C. S. Pinto leg. (IBSP 112324); 3♂, 29–31.x.1999, G. G. Montigelli leg. (IBSP 107999); 5♂, 29–31.x.1999, G. G. Montigelli leg. (IBSP 108013); [15° 47' 39" S 47° 52' 55" W], 1♂, 16.ii.1971, W. R. Lourenço leg. (MNRJ 6306); 70000, Norte, Lago Paranoá, [15° 49' 57.18" S 47° 50' 51.61" W], 1♀, xi.1977, C. T. S. Filho leg. (MZSP 22109). Goiás: Rio Verde, [17° 47' 22.28" S 50° 55' 13.54" W], 1♂, 13.xi.1989, J. H. G. Medeiros leg. (IBSP 110489).

Etymology. The specific name is a substantive honoring the candangos, the name given to the workers who constructed the city of Brasília, the type locality.

Diagnosis. Males of *A. candango* resemble those of *A. pampulha* and *A. cornelli* by the wide tegulum and by the short, flattened embolus. Share with *A. cornelli* the keels arrangement, which are equidistant. Differ by all other species of the group *pinhao* by the delicate, small serrated area, present but inconspicuous; keels elongated on prolateral surface, almost reaching the base of PA (Fig. 54 A–C). Females differ from those of other species of the group by the absence of lobes on receptacles, with irregular edges; lateral swollen absent (Fig. 54 D).

MALE (MZSP 22109): Total length 17.38; Carapace, long 6.125; wide 5.625. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 50 B). Only with marks of inserctions of brisltes on these interdistances: between AME-clypeus, between ALE–ALP and between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle (Fig. 50 C). Rastellum inconspicuous, inverted V-shaped, hirsute, without spines in apice (Fig. 50 E–F). Chelicera with eight

denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with five megateeth (Fig. 50 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 51 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 51 A, C). Tibia IV without spines on dorsal surface (Fig. 51 D). Ventral pseudoscapulae occupying 10% of the length of tarsus I, 20% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish beige; Patella and tibia of palp paler than other articles, orangewish. Abdomen pale gray (Fig. 50 A). **Eyes: Diameters:** PME 0.24, PLE 0.28, ALE 0.48, AME 0.4; MOQ: Length 1.2, front width 2.52, back width 2.4; **Interdistances:** PME–PME 1.6, PLE–PME 0.08, AME–AME 0.28, ALE–AME 0.36, ALE–PLE 0.6, AME–PME 0.4. **Ocular area:** OAL 4.375, OAW 3.75, and IF 2.37. **Body:** Clypeus: 0.25; Fovea: 2.625; Labium: long 1.37; wide 1.25; Chelicera: long 2.25; wide 1.875; Sternum: long 5.25; wide 4.75; Abdomen: long 6; wide 4.375. **Leg measurements:** I: Fe 6.25/ Pa 2.625/ Ti 2.875/ Me 4.25/ Ta 2.625/ total 18.625. II: 6.25/ 2.75/ 3.625/ 4.125/ 2.5/ 19.25. III: 4.875/ 2.75/ 2.75/ 4.375/ 2.75/ 17.5. IV: 6.375/ 3/ 5.25/ 5/ 3.125/ 22.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0-0-1, r0-0-2; Me v2-3-2, d0, p0-1-1, r1-4-3; Ta v0-2-5, d0, p0-1-3, r2-3-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0-0-2; Me v0-4-2, d0, p0-1-2, r0-1-3; Ta v0-5-5, d0, p0-3-3, r2-3-3. III – Fe v0, d0, p0, r0; Pa v0, d4-6-21, p0-0-2, r0-0-3; Ti v0, d0-1-14, p0-0-2, r0-2-3; Me v0-1-5, d3-2-0, p1-3-1, r1-2-4; Ta v0, d0, p1-10-12, r2-4-6; IV – Fe v0, d0, p0, r0; Pa v0, d20-12-8, p0, r0; Ti v0-0-2, d0, p0, r0; Me v0-2-3, d0, p0-0-2, r0-3-2; Ta v0, d0, p1-6-7, r0-1-3. **Palp:** Wide, short tegulum; PA developed, embolus with three keels (PAc, PI and PS). BTA developed, placed medially on prolateral tegular surface; Serrated area positioned distal to PAc, next the base of embolus, represented by few small cusps; embolar base flattened (Fig. 54 A–C).

FEMALE (MZSP 22109): Total length 27.875; Carapace, long 10.5; wide 9.625. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 52 B). Many short and long bristles between AME–clypeus, between PLE–ALE, between posterior eyes–fovea and between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 52 C). Rastellum protuberant, subquadrate, hirsute, with a row of

short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 52 E–F). Chelicera with eight denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one teeth, basal to megateeth. Retrolateral row of teeth with five megateeth and two teeth between three basal megateeth (Fig. 52 D). Patella III and tibia III with distal interrupted crowns of thorns (Fig. 53 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 53 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 53 D). Carapace, chelicerae, sternum, coxae, trochantera and femora reddish-brown; Patellae, tibiae, metatarsi, tarsi of legs and palp yellowish-brown; Abdomen pale brown with portions of depigmented area in dorsal view (Fig. 52 A). 37 labial cuspules, 143 in right maxilla and 154 in left. **Eyes:** **Diameters:** PME 0.28, PLE 0.48, ALE 0.52, AME 0.32; MOQ: Length 1.72, front width 4.12, back width 4.12; **Interdistances:** PME–PME 2.6, PLE–PME 0.16, AME–AME 0.52, ALE–AME 1.36, ALE–PLE 0.92, AME–PME 0.88. **Ocular area:** OAL 8.125, OAW 6.25, and IF 4. **Body:** Clypeus: 1; Fovea: 4.875; Labium: long 2.75; wide 2.375; Chelicera: long 6.125; wide 3.75; Sternum: long 9; wide 8.5; Abdomen: long 14.75; wide 8.875. **Leg measurements:** I: Fe 4.125/ Pa 3.75/ Ti 2.75/ Me 3.125/ Ta 2.75/ total 16.5. II: 5.25/ 3.75/ 2.125/ 2.125/ 1.875/ 15.125. III: 4.375/ 4.25/ 1.625/ 3.75/ 1.5/ 15.5. IV: 6.25/ 4.5/ 3.75/ 4.375/ 1.625/ 20.5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v2-0-3, d0, p0-1-4, r8-11-10; Me v1-0-1, d0, p4-3-2, r1-5-2; Ta v0-0-2, d0, p3-4-2, r5-3-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-6-5, d0, p0, r17-22-26; Me v2-2-3, d0, p5-6-5, r5-8-6; Ta v2-3-5, d0, p3-4-4, r0-0-3. III – Fe v0, d0, p0, r0; Pa v0, d0-0-30, p0, r0-1-26; Ti v0, d1-0-15, p0, r57-62-76; Me v0-2-6, d0, p4-8-11, r15-8-4; Ta v36-25-20, d0-4-1, p15-8-8, r1-0-2; IV – Fe v0, d0, p0, r0; Pa v0, d38-17-12, p0, r0; Ti v0, d0-1-0, p0-0-1, r0; Me v0-0-3, d0-2-3, p0-1-2, r0-2-3; Ta v12-16-14, d0, p0-7-10, r0-0-4. **Spermathecae:** Represented by two seminal receptacles weakly fused to base, longer as wide, with short duct. Absence of lobes on receptacles and lateral swelling (Fig. 54 D).

Distribution. BRAZIL. Distrito Federal: Brasília. Goiás: Rio Verde (Map 4).

Actinopus paraitinga new species

Figs 55–59, Map 4

Type material. Holotype. Male from [23° 24' 18" S 45° 15' 51" W], Parque Estadual Serra do Mar, Núcleo Santa Virgínia, São Luiz do Paraitinga, São Paulo, Brazil, 19.i.2005, Prado leg. (IBSP 113424). **Paratypes:** BRAZIL. Goiás: Padre Bernardo, Fazenda Santa Clara, [15° 10' 04" S 48° 17' 04" W], 1♂, D. Brureville leg. (MNRJ 6795). Minas Gerais: Belo Horizonte, Bairro Gamaleira, [19° 56' S 45° 59' W], 1♂, 24.ix.1999 (UFMG 581); Viçosa, Bairro de Lourdes, [20° 45' 21" S 42° 52' 59" W], 1♂, 22.i.2002, B. de S. Lima leg. (MNRJ 6789); Campus da Universidade Federal de Viçosa (UFV), Villa Gianetti 21, Varanda, [20° 45' 51" S 42° 52' 05" W], 1♂, 26.i.1990, M. A. M. Rocha leg. (MNRJ 6794). Rio de Janeiro: Macaé, Parque Natural Municipal Atalaia, [22° 17' S 42° 28' W], 2♂, 04.ix.2010, G. Costa leg. (UFRJ 6464); Cachoeiras do Macacu, Reserva Biológica de Guapiaçu, 22° 25' 45" S 2° 44' 62" W, 1♂ e 1j, 8–12.xi.2001, A. Giupponi leg. (MNRJ 3555); Pinheiral, [22° 31' S 43° 59' W], 2♂ e 1♀, M. Mello leg. (MNRJ 1). São Paulo: São Luiz do Paraitinga, [23° 13' S 45° 18' W] 1♂, 28.ii–1°.iii.2005, I. Messina leg. (IBSP 112998); 3♂, 28.ii–1°.iii.2005, I. Messina col. (IBSP 112999, one removed for SEM); 1♂ e 1♀, 28.ii–1°.iii.2005, I. Messina leg. (IBSP 113000); Parque Estadual Serra do Mar, Núcleo Santa Virgínia, [23° 24' 18" S 45° 15' 51" W], 1♂, 19.i.2005, Prado leg. (IBSP 113419, 113420, 113421, 113422, 113423, 113424).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus paraitinga* differ from those of most species of the genus by the delicate embolus and notorious BTA placed medially on prolateral tegular surface. Differ from all other species of the group by the tegulum presenting a swelling, above PA (visible on both prolateral and retrolateral views) and by the thinner embolus (Fig. 59 A–C). Females differ from those of other species by a unique combination of characters: Two receptacles, each with two lobes; external lobe subtriangular, bigger than internal lobe and presence on external lateral wall of each receptacle with a slight swollen (Fig. 59 D).

MALE (IBSP 113424): Total length 12,125; Carapace, long 6,25; wide 6,25. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 55 B). Six bristles between AME–clypeus. Sternum with eight sigillae fused in the middle, all sigillae strongly demarcated and fused to each other (Fig. 55 C) Rastellum protuberant, inverted V-shaped, hirsute, with two spines in apice (Fig. 55 E–F).

Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and two denticles. Retrolateral row of teeth with five megateeth and three teeth between three basal megateeth (Fig. 55 D). Patella and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 56 A–D). Patella III and IV with spines on prolaterodorsal face (Figs. 56 A, C). Patella IV with prolaterodorsal short spines along the extension of articulation (Fig. 56 D). Ventral pseudoscapulae occupying 30% of the length of tarsi I, 40% of II and 100% of III and IV, and occupying 15% of the length of metatarsi I. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibia, metatarsi and tarsi reddish brown, tibia of palp yellow and abdomen pale brown (Fig. 55 A). **Eyes: Diameters:** PME 0.3 PLE 0.4; ALE 0.5; AME 0.4; MOQ: Length 1.25, front width 2.7, back width 2.55; **Interdistances:** PME-PME 1.35, PLE-PME 0.15, AME-AME 0.2, ALE-AME 0.55, ALE-PLE 0.6, AME-PME 0.45. **Ocular area:** OAL 4.25, OAW 3.55, and IF 1.55. **Body:** Clypeus: 0.37; Fovea: 2.32; Labium: long 1.58; wide 1.08; Chelicera: long 3.08; wide 1.83; Sternum: long 4.3; wide 3.4; Abdomen: long 4.9; wide 3.9. **Leg measurements:** I: Fe 7.25/ Pa 2.87/ Ti 4.37/ Me 5/ Ta 3.12/ total 22.62. II: 7.25/ 3/ 9.5/ 5.375/ 3/ 28.125. III: 7.375/ 3/ 3.375/ 8/ 3.375/ 25.125. IV: 7.75/ 3.125/ 6.375/ 5.75/ 3.875/ 26.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-5, d0, p0-0-1, r0-0-4; Me v1-7-5, d0, p1-2-4, r3-3-3; Ta v0-0-2, d0, p1-3-5, r3-5-9. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-7, d0, p0, r0-6-10; Me v2-8-12, d0, p1-3-3, r5-3-4; Ta v0-1-3, d0, p2-4-3, r4-5-14. III – Fe v0, d0, p0, r0; Pa v0, d1-3-29, p0-1-3, r0-0-2; Ti v0-0-7, d0-1-11, p0-0-2, r0-2-9; Me v1-15-18, d0, p2-1-1, r4-5-5; Ta v0-0-5, d0, p4-7-10, r6-14-15; IV – Fe v0, d0, p0, r0; Pa v0, d20-15-9, p2-0-1, r0; Ti v2-2-7, d0, p0, r0; Me v6-8-14, d0, p0-1-4, r0-0-2; Ta v0-0-4, d0, p4-8-11, r3-9-18. **Palp:** PA well developed, embolus with three keels (PAc, PI and PS). Basal surface of tegulum with a swollen above PA. BTA well developed, placed medially on prolateral tegular surface; prolateral surface of tegulum serrated next base of embolus; embolar bases thin (Fig. 59 A–C).

FEMALE (MNRJ 1): Total length 12.375; Carapace, long 7.375; wide 7.5. Carapace anterior part square. Anterior eye row slightly procurved, posterior row recurve. Short bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of

carapace (Fig. 57 B). Sternum with eight sigillae strongly fused in the middle, all sigillae very fused to each other (Fig. 57 C). Rastellum protuberant, subquadrate, hirsute, with a row of spines on edge of rastellum and many spines on dorsal part of rastellum (Fig. 57 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and two teeth between three basal megateeth. Retrolateral row of teeth with five megateeth and four teeth between four basal megateeth (Fig. 57 D). Patella III and Tibia III with distal developed crowns of thorns (Fig. 58 A–B). Patella IV with prolaterodorsal spines along the extension of articule (Fig. 58 C). Tibia IV without spines along the extension of the article (Fig. 58 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, tarsi and palp redish brown, and abdomen pale gray (Fig. 57 A). 32 labial cuspules, 134 in right maxilla and 147 in left. **Eyes: Diameters:** PME 0.24 PLE 0.4 ALE 0.4, AME 0.16; **MOQ:** Length 1.32, front width 4.08, back width 3.52; **Interdistances:** PME–PME 2.12, PLE–PME 0.12, AME–AME 0.16, ALE–AME 1.72, ALE–PLE 0.92, AME–PME 0.96. **Ocular area:** OAL 6.5, OAW 4.37, and IF 2.62. **Body:** Clypeus: 0.37; Fovea: 3.87; Labium: long 1.62; wide 1.5; Chelicera: long 3.25; wide 2.87; Sternum: long 5.37; wide 4.75; Abdomen: long 11.87; wide 9.25. **Leg measurements:** I: Fe 3.5/ Pa 2.75/ Ti 2/ Me 2.62/ Ta 1.25/ total 12.12. II: 3.5/ 3/ 2.12/ 2.87/ 0.87/ 12.37. III: 4.12/ 2.87/ 0.75/ 3/ 1.12/ 11.87. IV: 5/ 3/ 3.12/ 3.25/ 1.25/ 15.62. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-2-4, r3-11-8; Me v1-1-3, d0, p9-8-7, r6-8-6; Ta v0-0-2, d0, p4-3-2, r5-5-6. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-0, d0, p0-0-1, r14-45-27; Me v0-0-1, d0, p5-9-8, r13-11-6; Ta v0-1-4, d0, p6-7-3, r7-6-6. III – Fe v0, d0, p0, r0; Pa v0, d0-3-41, p0, r0-1-35; Ti v0, d1-0-22, p0-0-4, r2-22-17; Me v0-3-8, d0-0-3, p6-3-4, r5-15-10; Ta v23-22-20, d0, p7-8-9, r5-14-9; IV – Fe v0, d0, p0, r0; Pa v0, d29-31-10, p0-1-0, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-0-1, p1-7-7, r0; Ta v5-13-9, d0, p3-11-9, r0-0-2. **Spermathecae:** Seminal receptacles slightly asymmetric, as long as wide, with short ducts. Receptacles bilobed, external lobe subtriangular, bigger than internal one. Pore distribution reaching apical half of each receptacle (Fig. 59 D).

VARIATION.

MALES (n=10): Eyes: Diameters: PME 0.24–0.32, PLE 0.28–0.4, ALE 0.44–0.6, AME 0.36–0.56; **MOQ:** Length 1.08–1.25, front width 2.6–3.2, back width 2.44–2.84; **Interdistances:** PME–PME 1.24–1.72, PLE–PME 0.08–0.16, AME–AME 0.16–0.28,

ALE–AME 0.48–0.72, ALE–PLE 0.4–0.64, AME–PME 0.32–0.52. **Ocular area:** OAL 3.87–5, OAW 3.37–4.8, and IF 1.55–2.83. **Body:** Total length: 11.37–15.5; Carapace: long 5.5–7.2; wide 5.62–6.87; Clypeus: 0.12–0.37; Fovea: 1.95–2.75; Labium: long 1.05–1.58; wide 1–1.25; Chelicera: long 1.1–3.08; wide 1.2–2.37; Sternum: long 3.6–4.75; wide 3–4; Abdomen: long 4.9–7.25; wide 3.87–5.87. **Leg measurements:** I: Fe 5.12–8/ Pa 2.37–3.25/ Ti 3.62–5/ Me 4–5.62/ Ta 2.37–3.62/ total 17.75–24.75. II: 5.62–7.75/ 2.5–3.25/ 3.62–9.5/ 4.25–5.87/ 2.75–3.5/ 18.62–28.12. III: 4.37–7.37/ 2.5–3.37/ 2.62–4/ 4.62–8/ 2.75–4.12/ 17–25.12. IV: 6–8.5/ 2.75–3.62/ 5.12–7/ 5–7.25/ 2.75–4.37/ 21.62–30.75. **FEMALES (n=2): Eyes: Diameters:** PME 0.24–0.32, PLE 0.36–0.4, ALE 0.4–0.48, AME 0.16–0.2; **MOQ:** Length 1.32–1.4, front width 3.6–4.08, back width 3.24–3.52; **Interdistances:** PME–PME 1.88–2.12, PLE–PME 0.12–0.16, AME–AME 0.16–0.4, ALE–AME 1.12–1.72, ALE–PLE 0.8–0.92, AME–PME 0.72–0.96. **Ocular area:** OAL 5.9–6.5, OAW 4.37–4.7, and IF 2.6–2.62. **Body:** Total length: 13.9; Carapace: long 7.37–8.25; wide 7–7.5; Clypeus: 0.37–0.5; Fovea: 3.62–3.87; Labium: long 1.62–1.7; wide 1–1.5; Chelicera: long 3.25–4.25; wide 2.75–2.87; Sternum: long 5.37–5.4; wide 4.5–4.75; Abdomen: long 11.87; wide 9.25. **Leg measurements:** I: Fe 3.5–4.25/ Pa 2.75–2.87/ Ti 2/ Me 2.5–2.62/ Ta 1.25–1.37/ total 12.12–13. II: 3.5–4.37/ 2.87–3/ 2.12/ 2.75–2.87/ 0.87–1.37/ 12.37–13.5. III: 4–4.12/ 2.87–3.37/ 0.75–1.62/ 3–3.12/ 1.12/ 11.87–13.25. IV: 5–5.5/ 3–3.5/ 3.12/ 3.25–3.62/ 1.25–1.37/ 15.62–17.12. Formula 4123.

Distribution. BRAZIL: Goiás: Padre Bernardo. São Paulo: São Luiz do Paraitinga. Minas Gerais: Belo Horizonte and Vioçosa. Rio de Janeiro: Macaé, Cachoeiras do Macacu and Pinheiral (Map 4).

***Actinopus cornelli* new species**

Figs 60–62, Map 4

Type material. Holotype. Male from [50° 53' 53" S 30° 08' 08" W], Águas Claras, Viamão, Rio Grande do Sul, Brazil, 18.iv.1993, F. Rodolpho leg. (MCN 23400).

Etymology. The specific name is a patronym honoring musician Chris Cornell, one of the founders of grunge music.

Diagnosis. Males of *A. cornelli* resemble those of *A. pampulha* and *A. candango* by the wide tegulum and short, flattened embolus. Differ from *A. candango* by the short keels on prolateral surface of tegulum, with PS and PI not reaching the middle of the prolateral tegular surface. They differ from those of all other species of the group *pinhao* by the long PAc, reaching the embolar apice, and median fold of tegular reservoir with wrinkled edges on prolateral view (Fig. 62 A–C).

MALE (MCN 23400): Total length 13.5; Carapace, long 6.25; wide 6.625. Carapace anterior part tapering and posterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 60 B). With few short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 60 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 60 E–F). Chelicera with 19 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth and five denticles between those megateeth (Fig. 60 D). Patella and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 61 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 61 A, C). Tibia IV without spines on dorsal surface (Fig. 61 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish-dark-brown; Abdomen gray, with long bristles covering the dorsal surface (Fig. 60 A). **Eyes: Diameters:** PME 0.28, PLE 0.4, ALE 0.6, AME 0.28; **MOQ:** Length 0.88, front width 3.24, back width 3.08; **Interdistances:** PME–PME 1.56, PLE–PME 0.2, AME–AME 0.32, ALE–AME 0.88, ALE–PLE 1.08, AME–PME 0.48. **Ocular area:** OAL 3.375, OAW 4.75, and IF 3.25. **Body:** Clypeus: 0.375; Fovea: 2.875; Labium: long 1.5; wide 1.375; Chelicera: long 3.5; wide 2; Sternum: long 4.125; wide 4; Abdomen: long 6.625; wide 5.25. **Leg measurements:** I: Fe 5.875/ Pa 2.5/ Ti 2.75/ Me 4.75/ Ta 5.25/ total 21.125. II: 5.75/ 2.75/ 3.5/ 4.75/ 2.875/ 19.625. III: 5/ 2.75/ 2.625/ 5.5/ 3.25/ 19.125. IV: 6.25/3.125/4.5/5.75/3.5/23.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-5, d0, p1-2-3, r0-0-3; Me v2-3-4, d0, p0-3-2, r1-2-2; Ta v4-4-9, d0, p1-2-5, r2-5-7. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-3, d0, p0, r1-2-4; Me

v1-2-5, d0, p2-5-8, r0-2-3; Ta v1-2-3, d0, p6-9-13, r3-5-8. III – Fe v0, d0, p0, r0; Pa v0-1-4, d4-8-31, p0-0-1, r1-3-4; Ti v0-0-4, d1-0-17, p0-0-1, r0-1-4; Me v4-5-4, d1-0-16, p3-5-6, r0-2-4; Ta v0, d0, p3-2-7, r0-6-4; IV – Fe v0, d0, p0, r0; Pa v0, d17-20-6, p0, r0; Ti v0, d0, p0-0-2, r0; Me v0, d0-0-1, p1-4-5, r0; Ta v0, d0, p1-5-6, r0. **Palp:** PA developed, embolus with three keels (PAC, PI and PS). BTA well-developed and placed medially on prolateral tegular surface; Serrated area developed, positioned distal to prolateral accessory keel and next the base of embolus, represented by many cusps; Wide and short tegulum and embolar base flattened. PAC length reaching the embolar apice and median fold of tegular reservoir with wrinkled edges on prolateral view (Fig. 62 A–C).

Distribution. BRAZIL. Rio Grande do Sul: Viamão: Águas Claras (Map 4).

Group *nattereri*

Diagnosis. The species included in the group *nattereri* are recognized by the following combination of characters: Medium to large total length; Embolus with three keels; BTA developed; serrated area above PAC on prolateral view reduced. Females are recognized by the spermathecae with two receptacles, without lateral swelling.

Species included. *Actinopus nattereri* (Doleschall, 1871); *Actinopus rufipes* (Lucas, 1834); *Actinopus vilhena* n. sp.; *Actinopus harveyi* n. sp.; *Actinopus itapitocai* n. sp.; *Actinopus ipioca* n. sp.; *Actinopus itaqui* n. sp.; *Actinopus xingu* n. sp.; *Actinopus mesa* n. sp.; *Actinopus caxiuana* n. sp.; *Actinopus utinga* n. sp.

***Actinopus nattereri* (Doleschall, 1871)**

Figs 63–67, Map 5

Pachyloscelis nattereri Doleschall in Ausserer, 1871: 139 (holotype ♀, Rio Negro, Amazonas, Brazil, NWMW, not located).

Actinopus nattereri; F. O. Pickard-Cambridge, 1896: 730; World Spider Catalog, 2018.

Note. The material examined was attributed to *A. nattereri* by the size and disposition of the eyes and by the congruent geographical distribution. The precedence of the material here studied is coincident with the route traveled by the collector of the type specimen, Johann Natterer (Papavero, 1971).

Diagnosis. Males of *A. nattereri* resemble those of *A. vilhena*, *A. itapitocai*, *A. itaqui*

and *A. caxiuana* by the bluewish-gray coloration of the dorsum of abdomen (Figs 63 A, 67 E); further resemble those of *A. caxiuana*, *A. ipioca* and *A. itaquí* by the tibia of palp paler than other articles; resemble those of *A. vilhena*, *A. harveyi*, *A. itapitocai*, *A. xingu* and *A. utinga* by BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 67 A); Resemble *A. vilhena*, *A. xingu* and *A. utinga* by keels, as seen on prolateral view, very closed to each other (Fig. 67 A). They differ from those of all other species of the group *nattereri* by the overlapping keels; tegulum subquadrate; and by a slightly swollen on prolateral surface of PS, visible on dorsal view (Fig. 67 A–C). Females resemble *A. rufipes* by the unilobed receptacles and those of *A. ipioca* by the pore distribution reaching nearly 60% of receptacle surface; they differ from those of all species of the group by the rounded, divergent receptacles (Fig. 67 D).

MALE (INPA 3511): Total length 13.38; Carapace, long 6.64; wide 6.7. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 63 B). Few short bristles, widespread between posterior eyes, in interdistances ALE–AME and forming a row along quilum. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 63 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines on apice (Fig. 63 E–F). Denticles widespread on subungual part of chelicera. Prolateral row of teeth decreasing on distal-proximal way and with denticles in the middle of retrolateral row (Fig. 63 D). Patella III and tibia III with distal crown of well developed thorns, not interrupted in the middle (Fig. 64 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 64 A, C). Tibia IV without spines on dorsal surface (Fig. 64 D). Ventral pseudoscopulae occupying 25% of the length of tarsi I, 50% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; In tarsi III and IV, compact. Carapace and chelicerae dark-redish-brown; Sternum redish-brown; Legs redish-brown; Tibia of palp yellowish-brown and other articles of palp brown; And abdomen iridescent blue (R. Saturnino, pers. comm., Fig. 67 E). **Eyes: Diameters:** PME 0.36, PLE 0.39, ALE 0.51, AME 0.5; MOQ: Length 1.37, front width 1.14, back width 2.33; **Interdistances:** PME–PME 1.95, PLE–PME 0.08, AME–AME 0.18, ALE–AME 0.85, ALE–PLE 0.76, AME–PME 0.57. **Ocular area:** OAL 4.64, OAW 3.62, and IF 4.05. **Body:** Clypeus: 0.12; Fovea: 2.72; Labium: long 1.46; wide 1.2; Chelicera: long 3.92; wide 2.14; Sternum: long 5.05; wide 3.54; Abdomen: long 6.96; wide 6.96. **Leg measurements:** I:

Fe 6.84/ Pa 3.26/ Ti 4.37/ Me 4.73/ Ta 3 / total 22.2. II: 6.79/ 3.24/ 4.31/ 4.91/ 3.13/ 22.38. III: 5.38/ 3.23/ 3.19/ 5.65/ 3.26/ 20.71. IV: 7.64/ 3.49/ 6.2/ 6.01/ 3.76/ 27.1. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-2, d0, p0, r0; Ti v0-2-6, d0, p0, r0-0-1; Me v2-2-4, d0, p2-2-2, r3-4-5; Ta v1-1-4, d0, p0-0-2, r0. II – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v1-7-8, d0, p0, r3-5-4; Me v2-3-5, d0, p1-2-3, r2-4-4; Ta v0-2-4, d0, p1-2-1, r1-3-0. III – Fe v0, d0, p0, r0; Pa v0-0-2, d4-7-17, p1-3-3, r0; Ti v5-4-3, d0-1-12, p0-0-2, r0-0-3; Me v5-7-3, d1-0-0, p0-2-0, r0-0-6; Ta v0, d0, p0, r0-2-1; IV – Fe v0, d0, p0, r0; Pa v0-0-3, d8-6-2, p1-6-2, r0; Ti v4-6-7, d0, p0, r0; Me v3-6-4, d0, p1-2-3, r0-1-0; Ta v0, d0, p0-2-1, r0. **Palp:** BTA poorly developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface, embolus with three distal developed and overlapping keels (PAc, PI and PS), demarcated on three views of embolus. Inconspicuous swelling proximal to PS in dorsal view. Robust and suquadrated tegulum, PA long, developed, continuous to PS (Fig. 67 A–C).

FEMALE (IBSP 113544): Total length 22.42; Carapace, long 7.56; wide 7.7. Carapace anterior part rounded. Anterior eye row procurved, posterior row recurve. Short bristles anterior eyes-clypeus in a row along the quilum edge (Fig. 65 B). Sternum with eight sigillae strongly fused in the middle, all sigillae very fused to each other (Fig. 65 C). Rastellum protuberant, rectangular, dorsally covered by many strong spines. Prolateral spines stronger than in the rest of rastellum (Fig. 65 E–F). Denticles widespread in subunguial part of chelicera. Prolateral row of teeth decreasing in distal-proximal way and with denticles in basis of retrolateral row (Fig. 65 D). Patella III and tibia III with distal crown of well developed thorns, not interrupted in the middle (Fig. 66 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 66 A, C). Tibia III with recurve crown of spines, strong spines along retrolateral surface of article and one dorsal spine at basal third of article (Fig. 66 B). Patella IV with prolaterodorsal short spines along the extension of article (Fig. 66 C). Tibia IV without spines and with many long bristles on prolateral surface (Fig. 66 D). Numerous robust spines on ventral, retrolateral and prolateral surfaces of tarsi III and IV; And prolateral and retrolateral surfaces of the tarsi and metatarsi I and II. Carapace yellowish-brown, with a spot in the form of yellow maple leaf and extended by eye area (Fig. 65 B). Sternum yellowish brown; Legs brown, with prolaterodorsal half of patella IV yellow (Fig. 66 D). Abdomen pale-brown (Fig. 65 A). 10 labial cuspules, 59 in right maxilla and 67 in left. **Eyes: Diameters:** PME 0.3, PLE 0.33, ALE 0.23, AME 0.35; MOQ: Length 1.28, front

width 0.82, back width 2.34; **Interdistances:** PME–PME 1.82, PLE–PME 0.13, AME–AME 0.29, ALE–AME 1.02, ALE–PLE 0.81, AME–PME 0.75. **Ocular area:** OAL 5.85, OAW 4.57, and IF 2.94. **Body:** Clypeus: 0.41; Fovea: 3.63; Labium: long 2.14; wide 1.56; Chelicera: long 4.52; wide 2.78; Sternum: long 5.72; wide 4.19; Abdomen: long 10.94; wide 9.45. **Leg measurements:** I: Fe 4.54/ Pa 2.92/ Ti 1.94/ Me 2.45/ Ta 1.53/ total 13.38. II: 4.62/ 3.08/ 2.02/ 2.51/ 1.64/ 13.87. III: 4.08/ 3.57/ 1.43/ 2.94/ 1.48/ 13.5. IV: 6.04/ 3.6/ 3.22/ 3.26/ 1.53 / 17.65. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v0-0-2, d0, p0-4-3, r4-15-8; Me v3-3-2, d0, p6-7-5, r7-8-5; Ta v1-2-2, d0, p3-5-2, r4-5-1. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v4-6-9, d0, p0, r7-15-19; Me v0-4-4, d0, p6-8-5, r8-12-7; Ta v1-2-2, d0, p5-6-3, r7-3-2. III – Fe v0, d0, p0, r0; Pa v0, d0-1-23, p0-0-2, r1-5-4; Ti v0, d0-13-21, p0-0-2, r0-0-1; Me v1-3-5, d4-3-6, p0, r4-9-10; Ta v13-12-10, d1-3-2, p1-4-3, r2-9-3; IV – Fe v0, d0, p0, r0; Pa v0, d12-11-5, p0, r0; Ti v0, d0, p0, r0; Me v0-1-2, d0-1-1, p0-0-4, r0; Ta v3-14-10, d0-1-3, p4-12-6, r1-1-3. **Spermathecae:** Unilobed seminal receptacles, rounded, divergent, as long as wide, with short ducts. Without sclerotized region on basal part of the spermatheca, replaced by a membrane (Fig. 67 D).

VARIATION.

MALES (n= 10): **Eyes: Diametres:** PME 0.28–0.41, PLE 0.3–0.71, ALE 0.42–0.74, AME 0.45–0.83; **MOQ:** Length 1.28–1.87, front width 1.05–1.63, back width 2.18–3.48; **Interdistances:** PME–PME 1.65–2.81, PLE–PME 0.06–0.27, AME–AME 0.14–0.26, ALE–AME 0.67–1.4, ALE–PLE 0.6–0.95, AME–PME 0.48–1.08. **Ocular area:** OAL 4.24–5.07, OAW 3.19–4.36, and IF 2.23–4.05. **Body:** Total length: 11.63–16.41; **Carapace:** Length 6.04–8.05; Wide 6.7–8.12; Clypeus: 0.13–0.3; Fovea: 2.54–3.21; Labium: Length 1.46–1.9; Wide 1.13–1.4; Chelicera: Length 2.8–4.5; Wide 1.78–2.7; Sternum: Length 4.77–5.67; Wide 3.54–4.16; Abdomen: Length 5.02–7.66; Wide 4.42–6.17. **Leg measures:** I: Fe 6.57–7.73/ Pa 2.98–3.38/ Ti 3.44–4.66/ Me 4.92–6.1/ Ta 2.9–3.46 / total 22.2–24. II: 6.47–7.38/ 3.02–3.43/ 3.95–5.07/ 4.91–6.04/ 3.1–3.42/ 22.2–24.4. III: 5.36–7.6/ 3.19–3.5/ 3.05–3.67/ 4.79–6.26/ 3.06–4.27/ 20.6–23.9. IV: 7.29–9.19/ 3.34–3.96/ 5.93–6.71/ 5.79–7.12/ 3.22–4.41/ 26–30.1. **FEMALES** (n=3): **Eyes: Diametres:** PME 0.18–0.3, PLE 0.23–0.33, ALE 0.15–0.23, AME 0.24–0.35; **MOQ:** Length 0.75–1.28, front width 0.12–0.82, back width 1.38–2.34; **Interdistances:** PME–PME 1.02–1.82, PLE–PME 0.11–0.13, AME–AME 0.1–0.29, ALE–AME 0.53–1.02, ALE–PLE 0.45–0.81, AME–PME 0.4–0.75. **Ocular area:** OAL 3.63–5.85, OAW

2.57–4.57, and IF 2.11–2.94. **Body:** Total length: 9.32–22.42; Carapace: Length: 4.31–7.56; Wide: 4.2–7.7; Clypeus: 0.16–0.41; Fovea: 1.58–3.63; Labium: Length 1.2–2.14; Wide 0.85–1.56; Chelicera: Length 2.81–4.52; Wide 1.65–2.78; Sternum: Length 3.29–5.72; Wide 2.51–3.19; Abdomen: Length 4.72–10.94; Wide 4.23–9.45. Leg measurements: I: Fe 2.49–4.54/ Pa 1.71–2.92/ Ti 1.15–1.94/ Me 1.55–2.45/ Ta 0.97–1.53/ total 8.08–13.38. II: 2.38–4.62 / 1.8–3.08/ 1.05–2.02/ 1.36–2.51/ 1.12–1.64/ 8.3–13.87. III: 2.49–4.08/ 2.11–3.57/ 0.5–1.43/ 1.2–2.94/ 0.83–1.48/ 7.52–13.5. IV: 3.05–6.04 / 1.88–3.6/ 2.26–3.22/ 1.99–3.26/ 1.18–1.53/ 10.63–17.65.

Distribution. BRAZIL. Amazonas: Manaus (Map 5).

Examined material. BRAZIL. *Amazonas*: Manaus, [03° 06' 47.9982" S 60° 1' 31.0008" W], 1♂, 01.ix.1984, C. Ruy leg. (INPA 3510); 01.viii.1978 (INPA 3167); Reserva do Km 41, [02° 26' S 59° 46' W], 1♀, vii–viii.2006, A. Y. Santo leg. (IBSP 113544); Reserva Florestal Adolpho Ducke, [02° 58' 5.9952" S 59° 55' 49.9836" W], 1♂, 28.ix.1983 (INPA 3511); 17–24.viii.1991, A. D. Brescovit leg. (MCN 21484); 1♀, 04.xii.1990, A. P. Apolinário leg. (INPA 3166); 12.xii.1990, F. B. Apolinário leg. (INPA 3165); 3♂, 28.ix.1983 (INPA 3534); 1993, Wollscheid & Curd leg. (MCN 24987); 4♂, viii–ix.1993, Wollscheid & Curd leg. (INPA 3509); 20♂ (INPA 6125); Acampamento Central, 02° 56' 31.66"S 59° 56' 39.37"W, 4♂, 24.vii.2008, R. Saturnino and J. ten Caten leg. (INPA 3168); L5-4500 m (T250m), 02° 57' 25.18"S 59° 55' 25.63"O, 2♂, 16.viii.2008, J. ten Caten leg. (INPA 3516); L5-2500 m (T30 150-180), 02° 57' 35.29"S 59° 56' 29.56"W, 1♂, viii.2008, J. ten Caten leg. (INPA 3515); L5-1500 m (T250m), 02° 57' 40.34"S 59° 57' 01.37"W, 1♂, 17.viii.2008, J. ten Caten leg. (INPA 3514); L7-500m (T250m), 02° 58' 49.32"S 59° 57' 23.67"W, 1♂, 08.viii.2008, J. ten Caten leg. (INPA 3517); Estrada da Compensa 25, [03° 06' 07" S 60° 01' 30" W], Manda Brasa, 6♂, 09.x.2006 (INPA 3164).

Actinopus rufipes (Lucas, 1834)

Figs 01, 68–72, Map 5

Pachyloscelis rufipes Lucas, 1834: 361, pl. 7C, f. 1 (holotype ♀, Brazil, MNHN, not located).

Cratoscelis rufipes Lucas, 1834: 362, pl. 7, f. D2.

Sphodros lucasi Walckenaer, 1837: 251.

Actinopus rufipes; Lucas, 1837: 376; Mello-Leitão, 1923: 27; Bücherl, 1957: 384; World Spider Catalog, 2018.

Note. As the type is lost, the specimens here attributed to *A. rufipes* were so identified based on the known geographic range of the species and in morphological characteristics highlighted in both the original description and in the redescription by Mello-Leitão (1923).

Diagnosis. Males of *Actinopus rufipes* resemble *A. ipioca*, *A. itaqui*, *A. mesa* and *A. caxiuana* by BTA placed medially on prolateral tegular surface; Resemble *A. nattereri*, *A. itaqui*, *A. mesa*, *A. caxiuana* and *A. utinga* by PA developed with a pronounced border on prolateral view; Resemble *A. itaqui* by the equidistant keels on prolateral view; Differ from *A. nattereri*, *A. vilhena*, *A. harveyi*, *A. mesa* and *A. utinga* by the inconspicuous serrated area, represented by few cusps. Differs from all species of the group *nattereri* by the large area delimited by the keels, reaching nearly 35% of tegulum length on prolateral view; serrated area very inconspicuous, represented by few small cusps on retrolateral surface, below embolar base; Embolus wide, flattened (Fig. 72 A–C). Also diagnostic is the palpal patella and tibia, paler than other palpal articles. Females differ from those of other species with non-lobed spermatecae by the triangular receptacle apex (Fig. 72 D); coxae, trochanters, femora of legs and palp, darker than other articles (Fig. 01 A).

MALE (IBSP 161468): Total length 18.62; Carapace, long 8.75; wide 8.25. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 68 B). Three bristles between AME–clypeus. Sternum with eight sigillae strongly fused in the middle, as a single central spot (Fig. 68 C). Rastellum protuberant, inverted V-shaped, hirsute, with two spines in apice (Fig. 68 E–F). Chelicera with denticles along the retrolateral row of teeth. Prolateral row of teeth with four megateeth and two basal teeth. Retrolateral row of teeth with six megateeth and two denticles between the row of megateeth (Fig. 68 D). Patella III and tibia III with distal crown of developed thorns, not interrupted in the middle (Fig. 69 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 69 A, C). Tibia IV without spines on dorsal surface and with two clear rows of trichobothrias (Fig. 69 D). Ventral pseudoscapulae occupying 10% of the length of Tarsi I, 30% of II and 100% of III and IV, without pseudoscapula on all

metatarsi. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum and distal articles of the legs, redish brown; coxae, trochantera, femora and cymbium of legs brown; Pattela and tibia of palp pale than other articles; And abdomen gray (Fig. 68 A). **Eyes:** **Diameters:** PME 0.3, PLE 0.4 ALE 0.55, AME 0.45; MOQ: Length 1.5, front width 3.5, back width 3.56; **Interdistances:** PME–PME 2.18, PLE–PME 0.12, AME–AME 0.37, ALE–AME 0.87, ALE–PLE 0.75, AME–PME 0.68. **Ocular area:** OAL 6.25, OAW 4.91, and IF 3.25. **Body:** Clypeus: 0.37; Fovea: 3.5; Labium: long 1.75; wide 1.5; Chelicera: long 5.12; wide 2.5; Sternum: long 5.37; wide 4.75; Abdomen: long 9.25; wide 5.75. **Leg measurements:** I: Fe 8.12/ Pa 3.75/ Ti 4.75/ Me 5.87/ Ta 3.25/ total 25.75. II: 7.75/ 3.75/ 4/ 5.75/ 3.25/ 24.5. III: 6.5/ 4.12/ 3.62/ 6/ 3.62/ 23.87. IV: 9.12/ 4/ 7/ 6.87/ 3.62/ 30.625. Formula 123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0; Me v2-4-4, d0, p0-1-3, r0-0-5; Ta v0-0-1, d0, p1-2-2, r1-5-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0-1-5; Me v1-2-5, d0, p0-0-2, r5-3-4; Ta v0-0-2, d0, p0-2-3, r1-6-4. III – Fe v0, d0, p0, r0; Pa v0, d3-3-21, p0, r0; Ti v0-0-2, d0-1-10, p0-0-5, r0-0-5; Me v1-1-6, d0, p1-2-4, r0-2-4; Ta v0, d0, p0-6-0, r0-2-5; IV – Fe v0, d0, p0, r0; Pa v0, d11-15-4, p0, r0; Ti v0-0-3, d0, p0, r0; Me v1-1-2, d0, p0, r0-0-5; Ta v0-0-3, d0, p1-5-8, r0-0-3. **Palp:** PA developed, embolus robust, with three keels (PAc, PI and PS) equally spaced. Basal surface of tegulum without a swelling above the PA. PA contiguous to PI on prolateral view. BTA well developed and placed medially on prolateral tegular surface; prolateral surface of tegulum serrated next the base of the embolus; embolar bases thicker (Fig. 72 A–C).

FEMALE (CAD 77): Total length 14.75; Carapace, long 8.25; wide 8.5. Carapace anterior part square. Anterior eye row slightly procurved, posterior row recurve. Short bristles forming a row between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace (Fig. 70 B). Sternum with eight sigillae strongly fused in the middle, all sigillae very fused to each other (Fig. 70 C). Rastellum protuberant, subquadrate, hirsute, with a row of spines in the edge of rastellum and a lot of spines in dorsal part of rastellum between the row placed in the edge (Fig. 70 E–F). Chelicera with eleven denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and two teeth in basal portion. Retrolateral row of teeth with six megateeth and one teeth between five and six basal megateeth (Fig. 70 D). Patella III and tibia III

with distal developed crowns of thorns, in patella III interrupted (Fig. 71 A–B). Patella IV with prolaterodorsal spines along the extension of articule and two rows of trichobothrias (Fig. 71 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 71 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, redish brown; patellae, tibia, metatarsi, and tarsi yellowish red and abdomen pale brown with many long bristles (Fig. 70 A). 20 labial cuspules, 147 in right maxilla and 142 in left. **Eyes: Diameters:** PME 0.32 PLE 0.48 ALE 0.48, AME 0.36; MOQ: Length 1.52, front width 4, back width 3.84; **Interdistances:** PME–PME 2.24, PLE–PME 0.16, AME–AME 0.44, ALE–AME 1.32, ALE–PLE 0.84, AME–PME 0.84. **Ocular area:** OAL 7.2, OAW 5.1, and IF 3.62. **Body:** Clypeus: 0.625; Fovea: 4; Labium: long 2.75; wide 1.875; Chelicera: long 4.12; wide 3.37; Sternum: long 5.875; wide 5.25; Abdomen: long 9; wide 6.75. **Leg measurements:** I: Fe 5/ Pa 3.375/ Ti 2.5/ Me 3/ Ta 1.625/ total 15.5. II: 5/ 3.5/ 2.375/ 3/ 1.62/ 15.5. III: 4.37/ 3.87/ 1.75/ 3.25/ 1.12/ 14.37. IV: 6.25/ 4.12/ 4.12/ 4.12/ 1.5/ 20.12. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-4-3, r9-12-10; Me v0-0-3, d0, p4-6-4, r7-14-15; Ta v0-0-3, d0, p2-3-3, r7-6-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-2, d0, p0-0-1, r11-23-28; Me v0-0-1, d0, p1-6-5, r11-11-6; Ta v0-0-2, d0, p2-6-4, r7-8-4. III – Fe v0, d0, p0, r0; Pa v0, d0-3-33, p0-0-3, r0-0-15; Ti v0, d1-0-12, p0-0-3, r5-15-10; Me v0-0-3, d0-0-4, p0-2-3, r6-13-10; Ta v15-17-12, d0-1-2, p2-5-5, r4-6-5; IV – Fe v0, d0, p0, r0; Pa v0, d10-15-7, p0-1-0, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-0-1, p0-4-4, r0; Ta v6-19-20, d0, p3-5-3, r0-0-3. **Spermathecae:** Seminal receptacles slightly asymmetric, long as wide, with short ducts. Both receptacles without lobes, with a triangular apex. Pore distribution reaching less than apical half of each receptacle (Fig. 72 D).

VARIATION.

MALES (n=10): **Eyes: Diameters:** PME 0.16–0.32. PLE 0.28–0.4. ALE 0.36–0.6. AME 0.4–0.48; MOQ: Length 1.12–1.5. front width 2.52–3.5. back width 2.44–3.76; **Interdistances:** PME–PME 1.52–2.18. PLE–PME 0.8–0.16. AME–AME 0.16–0.4. ALE–AME 0.56–0.95. ALE–PLE 0.52–0.76. AME–PME 0.44–0.68. **Ocular area:** OAL 2.48–6.25. OAW 2.44–6.12. and IF 2–3.75. **Body:** Total length: 13.75–18.75; Carapace: long 6.62–9; wide 6–8.25; Clypeus: 0.12–0.37; Fovea: 2.62–3.5; Labium: long 1.37–1.87; wide 1.12–1.62; Chelicera: long 2.5–5.12; wide 1.87–2.62; Sternum: long 4.12–5.37; wide 3.62–4.75; Abdomen: long 7–9.25; wide 4.87–7. **Leg**

measurements: I: Fe 6.37–8.12/ Pa 2.87–3.75/ Ti 3.62–4.75/ Me 4.25–5.87/ Ta 2.5–3.5/ total 19.62–25.75. II: 6.12–7.75/ 2.62–3.75/ 3.62–4.25/ 3.75–5.75/ 2.62–3.62/ 18.75–24.5. III: 4.75–6.5/ 2.75–4.12/ 2.62–3.62/ 4.37–6/ 2.62–3.62/ 17.12–23.87. IV: 6.5–9.12/ 2.87–4/ 5.25–7/ 5.25–6.87/ 3–3.87/ 23.12–30.62. **FEMALES** (n=3): **Eyes:** **Diameters:** PME 0.28–0.4. PLE 0.4–0.48. ALE 0.4–0.52. AME 0.2–0.36; **MOQ:** Length 1. 2–1.52. front width 3. 82–4. back width 3.08–3.84; **Interdistances:** PME–PME 1.76–2.24. PLE–PME 0.8–0.16. AME–AME 0.24–0.44. ALE–AME 0.96–1.32. ALE–PLE 0.48–0.84. AME–PME 0.64–0.84. **Ocular area:** OAL 5. 8–7.2. OAW 4.66–5.1. and IF 2.3–3.62. **Body:** Total length: 14.75–17.16; Carapace: long 7.3–8.25; wide 7.08–8.5; Clypeus: 0.5–0.7; Fovea: 3.33–4; Labium: long 2–2.75; wide 1.5–1.87; Chelicera: long 3.75–4.12; wide 2.75–3.37; Sternum: long 4.66–5.87; wide 4.25–5.25; Abdomen: long 9–9.12; wide 6.37–6.75. **Leg measurements:** I: Fe 3.37–5/ Pa 2.87–3.35/ Ti 1.87–2.5/ Me 2.25–3/ Ta 1.5–1.62/ total 12.5–15.5. II: 4–5/ 2.87–3.5/ 2–2.37/ 2.37–3/ 1–1.62/ 12.37–15.5. III: 3.87–4.37/ 3–3.87/ 1.12–1.75/ 2.75–3.25/ 1.12–1.25/ 12–14.37. IV: 5.37–6.25/ 3.12–4.12/ 3.12–4.12/ 3.12–4.12/ 1.37–1.5/ 16.25–20.12. Formula 4123.

Distribution. BRAZIL. Maranhão: Tutóia. Bahia: Jaborandi. Mato Grosso: Aripuanã. Mato Grosso do Sul: Paranaíba, and Três Lagoas. São Paulo: Luiz Antônio. Minas Gerais: Belo Horizonte, and São Gonçalo do Rio Preto (Map 5).

Examined material: BRAZIL. Maranhão: Tutóia, [2° 45' S 42° 16' W], 1♂ 2♀, xi.1936, A. Silvio leg. (IBSP 103432). Bahia: Jaborandi, [13° 35' S 44° 32' W], Veredas do Oeste Bahiano, Refúgio da Vida Silvestre, 1♂, 13.xi.2007, R. Recorder leg. (IBSP 114491). Mato Grosso: Aripuanã, Chapada Darnadelos, 10° 10' S 59° 27' O, 2♂, 02–13.xi.1996, G. Skuk leg. (MZSP 15428). Mato Grosso do Sul: Paranaíba, [19° 40' S 51° 10' W], 1♂, 03.xi.1983, R. R. da Silva leg. (IBSP 110502); Três Lagoas, [21° 37' S 52° 50' W], Fazenda Canãa, 1♂, F. Lane leg. (MZSP 5348). Minas Gerais: Diamantina, Parque Estadual do Biribiri, [18° 07' 13.19"S 43° 34' 47.69"W], 1♂, A. H. Apolinario & J. P. L. Guadanucci leg. (CAD 615), 1♀, 05–10.xi.2012, A. H. Apolinario & J. P. L. Guadanucci leg. (CAD 614); São Gonçalo do Rio Preto, Parque Estadual do Rio Preto (PERP), [18° 9' 15" S 43° 20' 50" W], 1♀, 16.iii.2010, Aleatório (CAD 77); 2♂, 20–25.x.2010, G. Monteiro, F. Sá, W. F. Silva & J. P. L. Guadanucci leg. (CAD 264); Belo Horizonte, Estação Ecológica da Universidade Federal de Minas Gerais (UFMG), 19°

58' S 43° 58' W, Creche, 1♂, 14.ix.1999 (UFMG 589); v.1999, E. S. S. Álvares leg. (UFMG 583). São Paulo, Luiz Antônio, Estação Ecológica de Jataí (EEJ), [21° 36' 54" S 47° 48' 02" W], 1♂, 6–12.xi.2009, A. G. Cristovão leg. (IBSP 161461, 161462, 161463, 161464, 161465, 161466, 161468, 161469, 161470, 161471, 161472, 161473, 161474, 161475, 161476, 161477); 2♂ (IBSP 161479); 3♂ (IBSP 161467, one removed for SEM).

***Actinopus vilhena* new species**

Figs 73–75, Map 5

Type material. Holotype. Male from [12° 44' S 60° 07' W], Vilhena, Rondônia, Brazil, ix.1999, M. Carvalho leg. (IBSP 114440). **Paratype:** BRAZIL. Mato Grosso do Sul: Corumbá, [19° 00' S 57° 39' W], 1♂ (IBSP 110559).

Etymology. The specific name is an adjective derived from the type locality name., Vilhena, Rondônia.

Diagnosis. Males of *A. vilhena* resembles *A. nattereri*, *A. itapitocai*, *A. itaqui* and *A. caxiuana* by the blueish-gray coloration on dorsal surface of abdomen (Fig. 73 A); Resemble *A. nattereri*, *A. harveyi*, *A. itapitocai*, *A. xingu* and *A. utinga* by BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 75 A); Resemble *A. nattereri*, *A. xingu* and *A. utinga* by keels contiguous, close to each other, as seen on prolateral view (Fig. 75 A). Resemble *A. harveyi*, *A. itapitocai*, *A. itaqui*, *A. xingu* and *A. utinga* by PA continuous to PI (Fig. 75 A). Differ from those of all other species of the group *nattereri* by the keels not overlapping and by the elongated, thin tegulum (Fig. 75 A–C).

MALE (IBSP 114440): Total length 17.38; Carapace, long 6.125; wide 5.625. Carapace anterior part tapering, posterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 73 B). Without bristles between AME–clypeus, between ALE–ALP, and with short bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 73 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines on apice (Fig. 73 E–F). Chelicera with four nine denticles along the prolateral row of teeth. Prolateral row of teeth five megateeth. Retrolateral row of teeth

with five megateeth and two denticles between the three distal and two basal megateeth (Fig. 73 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 74 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 74 A, C). Tibia IV without spines on dorsal surface (Fig. 74 D). Ventral pseudoscapulae occupying 30% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi dark brown; Abdomen gray and hirsute (Fig. 73 A). **Eyes: Diameters:** PME 0.24, PLE 0.44, ALE 0.56, AME 0.36; MOQ: Length 1.24, front width 3.32, back width 2.92; **Interdistances:** PME–PME 1.76, PLE–PME 0.28, AME–AME 0.24, ALE–AME 0.92, ALE–PLE 1.24, AME–PME 0.52. **Ocular area:** OAL 6.25, OAW 4.375, and IF 4. **Body:** Clypeus: 0.375; Fovea: 2.625; Labium: long 1.25; wide 1.25; Chelicera: long 3.5; wide 2.125; Sternum: long 6.375; wide 4.5; Abdomen: long 7.5; wide 5. **Leg measurements:** I: Fe 7/ Pa 2.875/ Ti 3.875/ Me 5/ Ta 2.5/ total 21.25. II: 6.5/ 3.125/ 3.75/ 5/ 2.75/ 21.125. III: 5.25/ 3/ 2.875/ 5.125/ 2.875/ 19.125. IV: 7.125/3.25/5.875/6.125/3/25.375. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-1, d0, p0, r0; Me v1-1-3, d0, p0, r3-6-2; Ta v0-6-2 d0, p0-0-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v2-1-3, d0, p5-5-0, r0-1-3; Ta v1-2-3, d0, p3-4-6, r1-3-6. III – Fe v0, d0, p0, r0; Pa v0-0-1, d3-4-18, p2-0-4, r0-0-2; Ti v0-0-5, d1-0-13, p0-0-4, r0-5-3; Me v1-1-5, d2-0-0, p2-0-0, r0-1-3; Ta v0, d0, p0-3-3, r0-2-2; IV – Fe v0, d0, p0, r0; Pa v0-1-2, d13-6-0, p2-1-0, r0; Ti v0-0-3, d0, p0, r0; Me v2-2-3, d0, p0, r0; Ta v0, d0, p0-1-9, r0-3-2. **Palp:** PA developed; thin, flattened embolus with three keels (PAC, PI and PS), equally spaced, without overlapping. serrated area absent. PA contiguous to PI on prolateral view. BTA well developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 75 A–C).

Distribution. BRAZIL. Rondônia: Vilhena. Mato Grosso do Sul: Corumbá (Map 5).

Actinopus harveyi new species

Figs 76–78, Map 5

Type material. Holotype. Male from [05° 49' S 37° 24' W], Aldeia Yanomami, Alto Alegre, Rio Grande do Norte, Brazil, 20–30.iv.2005, C. Kirsch leg. (IBSP 111837).

Etymology. The specific name is a patronym in honor of Australian arachnologist Mark S. Harvey, who kindly received the first author on the Western Australian Museum, Perth.

Diagnosis. Males of *A. harveyi* resemble those of *A. nattereri*, *A. vilhena*, *A. itapitocai*, *A. xingu* and *A. utinga* by BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 78 A); They differ from those of *A. nattereri*, *A. vilhena*, *A. xingu* and *A. utinga* by keels not overlapping on prolateral view (Fig. 78 A). Differ from all other species of the group *nattereri* by the short, inconspicuous PA and PAc reaching only 10% of the length of PI, as seen on dorsal view (Fig. 78 A–C).

MALE (IBSP 111837): Total length 12.25; Carapace, long 6.75; wide 6.25. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 76 B). With few short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 76 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 76 E–F). Chelicera with seven denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with six megateeth and two denticles between the two medial teeth and two basal megateeth (Fig. 76 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 77 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 77 A, C). Tibia IV without spines on dorsal surface (Fig. 77 D). Ventral pseudoscapulae occupying 30% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale brown (Fig. 76 A). **Eyes: Diameters:** PME 0.28, PLE 0.4, ALE 0.44, AME 0.44; **MOQ:** Length 1.24, front width 3.16, back width 2.92; **Interdistances:** PME–PME 1.68, PLE–PME 0.12, AME–AME 0.2, ALE–AME 0.84, ALE–PLE 0.64, AME–PME 0.52. **Ocular area:** OAL 4.375, OAW 3.75, and IF 2.125. **Body:** Clypeus: 0.25; Fovea: 2.25; Labium: long 1.375; wide 1.125; Chelicera: long 3.25; wide 1.75; Sternum: long 4.5; wide 3.5; Abdomen: long 5.875; wide 4.25. **Leg measurements:** I: Fe 6.125/ Pa 2.875/ Ti 3.875/ Me 4.875/ Ta 3/ total 20.75. II: 5.875/ 2.875/ 4/ 5.125/ 2.875/ 20.75. III: 5/ 3.125/ 2.75/ 5/ 2.875/ 18.75. IV: 6.25/ 3.375/ 5.5/ 5.625/ 3.25/ 24. Formula 4123.

Spinulation: I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-8, d0, p0, r0-0-3; Me v4-8-6, d0, p0-0-3, r0-5-3; Ta v1-3-3, d0, p1-3-2, r4-4-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-5, d0, p0, r0-0-5; Me v6-8-10, d0, p1-2-2, r0-2-3; Ta v1-3-3, d0, p1-3-5, r1-6-6. III – Fe v0, d0, p0, r0; Pa v0, d4-13-25, p0-0-3, r0; Ti v0, d1-0-15, p0-0-3, r0-0-3; Me v2-4-5, d2-2-3, p0-0-1, r0-2-4; Ta v0, d0, p3-6-6, r3-8-3; IV – Fe v0, d0, p0, r0; Pa v0, d14-8-4, p1-0-1, r0; Ti v0-0-2, d0-0-2, p0, r0; Me v1-1-4, d0, p0-1-2, r0-0-2; Ta v0, d0, p1-7-4, r1-5-3. **Palp:** PA short and inconspicuous, embolus thin, flattened, with three keels (PAc, PI and PS). Serrated area absent. PA contiguous to PI on prolateral view. BTA well developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 78 A–C).

Distribution. BRAZIL. Rio Grande do Norte: Alto Alegre (Map 5).

Actinopus itapitocai new species

Figs 79–83, Map 5

Type material. Holotype. Male from [29° 44' S 57° 05' W], Uruguaiana, Rio Grande do Sul, Brazil, 15.ii.1973, E. Huber leg. (MCN 3112). **Paratypes:** BRAZIL. Goiás: Jataí, [17° 53' S 51° 42' W], Fazenda Aceiro, 1♀, Equipe DZ leg. (MZSP 22122). Espírito Santo: [19° 11' S 40° 18' W], 2♀ 1J, 19.vi.1920, E. Garle leg. (MZSP 10870); Vila Velha, [20° 20' S 40° 17' W], 4♀, 17.viii.1947, K. Imagine leg. (MZSP 22114); 6♀, 17.viii.1947, K. Imagine leg. (MZSP 22113, 1♀ removed for SEM). São Paulo: Tatuí, [23° 21' S 47° 51' W], 1♂, ix.1982, J. L. Gomes Protta (IBSP 104405); Ubatuba, [23° 26' S 45° 05' W], 11♀ 1J, 02.xii.1968, Spreket K. Ramos leg. (MZSP 22111); São Paulo, [23° 32' 56" S 46° 38' 20" W], 1♀, ix.1945 (MZSP 7513); Ipiranga, [23° 35' S 46° 36' W], 1♀, i.1926, Spitz leg. (MZSP 10869); 19.iv.1942, J. Barroso [MZSP 22121]; Horto, 1♀, viii.1925, Hnedeirvalbt leg. (MZSP 5788); Itapetininga, [23° 34' S 48° 01' W], 1♀, E. Rabello leg. (MZSP 22115). Paraná: Curitiba, [25° 25' S 49° 16' W], 9♀, ix.1946, Goffergé leg. (MZSP 22112). Rio Grande do Sul: Uruguaiana, Itapitocai, [29° 47' S 57° 03' W], 1♂ 2♀, A. Dutra leg. (IBSP 103433).

Etymology. The specific name is an adjective referring to the procedence of one of the paratypes, from the type locality, Uruguaiana, State of Rio Grande do Sul, Brazil.

Diagnosis. Males of *A. itapitocai* resemble those of *A. vilhena*, *A. nattereri*, *A. itaqui* and *A. caxiuana* by the blueish-gray coloration on dorsum of abdomen. Differ by this pattern been reduced to a spot on anterior third (Fig. 79 A); Resemble *A. vilhena*, *A. harveyi*, *A. nattereri*, *A. xingu* and *A. utinga* by the BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 83 A–B); Resemble *A. harveyi*, *A. vilhena*, *A. itaqui*, *A. xingu* and *A. utinga* by PA contiguous to PI on prolateral view. Differ from all other species included on the group *nattereri* by PS and PI reaching only 30-35% of the length of embolus, as seen on dorsal view; PAc totally covered by PI on dorsal view; and tegulum with a depression on retrolateral surface (Fig. 83 A–C). Females resemble *A. ipioca* by the bilobed receptacles, with outer lobe higher than inner lobe. Differs from *A. ipioca* by the pore distribution reaching the border between basal membrane and receptacles, and by the subquadrate receptacles (Fig. 83 D)

MALE (MCN 3112): Total length 15.25; Carapace, 6.875; wide 6.75. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 79 B). With few, short and sparse bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 79 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 79 E–F). Chelicera with 16 denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with six megateeth and three denticles, one the medial teeth and two between the two basal megateeth (Fig. 79 D). Patella and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 80 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 80 A, B). Tibia IV without spines on dorsal surface (Fig. 80 D). Ventral pseudoscapulae occupying 40% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish-dark-brown; Abdomen pale brown with an anterior blueish abdomen on dorsal surface (Fig. 79 A). **Eyes: Diameters:** PME 0.24, PLE 0.44, ALE 0.52, AME 0.32; **MOQ:** Length 1.24, front width 3.56, back width 3.12; **Interdistances:** PME–PME 1.92, PLE–PME 0.12, AME–AME 0.24, ALE–AME 1.04, ALE–PLE 0.56, AME–PME 0.72. **Ocular area:** OAL 5.25, OAW 4, and IF 2.625. **Body:** Clypeus:

0.375; Fovea: 3; Labium: long 1.75; wide 1.5; Chelicera: long 3.75; wide 2; Sternum: long 4.75; wide 4.125; Abdomen: long 7.75; wide 6.125. **Leg measurements:** I: Fe 6.125/ Pa 3/ Ti 3.625/ Me 4.25/ Ta 2.5/ total 19.5. II: 5.75/ 3/ 3.25/ 4.625/ 2.75/ 19.375. III: 4.875/ 3/ 2.25/ 4.75/ 3/ 17.875. IV: 6.75/ 3.25/ 5.375/ 6.375/ 3.5/ 25.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0-0-4, d0, p0-0-4, r0; Ta v0, d0, p0-0-4, r0-0-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0, d0, p0, r1-3-3; Ta v0, d0, p0-2-2, r0-3-6. III – Fe v0, d0, p0, r0; Pa v0, d10-15-23, p0-0-1, r0-0-2; Ti v0-0-3, d1-0-13, p0-0-2, r0-1-4; Me v0-1-4, d1-2-4, p0, r1-2-3; Ta v0, d0, p0-2-3, r0-3-8; IV – Fe v0, d0, p0, r0; Pa v0, d18-12-6, p1-1-3, r0; Ti v0-0-1, d0, p0, r0; Me v0-1-5, d0, p2-4-3, r0; Ta v0, d0, p1-8-7, r1-3-0. **Palp:** PA developed; embolus thin and flattened, with three keels (PAc, PI and PS) equally spaced and without overlapping. serrated area absent. PA contiguous to PI on prolateral view. BTA well developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 83 A–C).

FEMALE (MZSP 22113): Total length 21.625; Carapace, long 8; wide 7.875. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 81 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 81 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 81 E–F). Chelicera with 8 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one teeth, basal to megateeth. Retrolateral row of teeth with seven megateeth and two teeth between three basal megateeth (Fig. 81 D). Patella III with distal interrupted crown of thorns and tibiae III with distal developed crown of thorns (Fig. 82 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 82 C). Tibia IV without spines and with long bristles along the prolaterodorsal surface (Fig. 82 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp redish brown; Abdomen pale brown with a big basal spot of long bristles on dorsal view (Fig. 81 A). 29 labial cuspules, 166 in right maxilla and 189 in left. **Eyes: Diameters:** PME 0.28, PLE 0.4, ALE 0.32, AME 0.16; **MOQ:** Length 1.16, front width 3.84, back width 3.48; **Interdistances:** PME–PME 1.88, PLE–PME

0.2, AME–AME 0.16, ALE–AME 1.4, ALE–PLE 0.68, AME–PME 0.8. **Ocular area:** OAL 6.5, OAW 4.875, and IF 2.75. **Body:** Clypeus: 0.375; Fovea: 3.875; Labium: long 1.875; wide 1.75; Chelicera: long 3.125; wide 2.75; Sternum: long 5.625; wide 5; Abdomen: long 12.125; wide 9.25. **Leg measurements:** I: Fe 3,625/ Pa 2,5/ Ti 2/ Me 2,5/ Ta 1,5/ total 12,125. II: 2,625/ 3/ 1,75/ 2,5/ 1,125/ 11. III: 4,125/ 3,375/ 1,5/ 2,75/ 1,125/ 12,875. IV: 5,25/ 3,625/ 3,25/ 2,5/ 0,875/ 15,5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-1, d0, p0-5-4, r10-13-7; Me v0-1-2, d0, p9-10-10, r12-9-7; Ta v1-2-2, d0, p4-6-3, r7-6-7. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r29-28-18; Me v0, d0, p4-5-4, r14-12-3; Ta v0-0-3, d0, p3-4-4, r3-2-4. III – Fe v0, d0, p0, r0; Pa v0, d0-6-48, p0-0-4, r0-2-15; Ti v0, d1-0-19, p4-0-4, r10-7-15; Me v0-0-3, d10-7-3, p4-3-3, r9-10-13; Ta v20-25-12, d0-0-4, p0-2-5, r5-12-6; IV – Fe v0, d0, p0, r0; Pa v0, d24-19-8, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0-0-1, p0-1-6, r0; Ta v13-16-18, d0, p3-10-5, r0-0-6. **Spermathecae:** Seminal receptacles slightly asymmetric, long as wide, with short ducts. Both receptacles bilobated, with outer lobe higher than inner lobe. Pore distribution reaching the border between basal membrane and receptacles (Fig. 83 D).

Distribution. BRAZIL. Espírito Santo: Vila Velha. Minas Gerais: Januária. Goiás: Jataí. São Paulo: Tatuí, Ubatuba, São Paulo, and Itapetininga. Rio Grande do Sul: Uruguaiana. Paraná: Curitiba (Map 5).

Examined material (burned in fire). Minas Gerais: Januária, [15° 20' S 44° 14' W], Riacho da Cruz, 1♂ 1♀ 1J, José Blaser leg. (IBSP 103434).

Actinopus ipioca new species

Figs 84–88, Map 5

Type material. Holotype. Male from [09° 39' 57" S 35° 44' 06" W], Serra da Saudinha, Ipióca, Maceió, Alagoas, Brazil, ii.2005, G. Q. C. Correia leg. (IBSP 112593).

Paratypes: BRAZIL. Alagoas: Maceió, Serra da Saudinha, Ipióca, [09° 39' 57" S 35° 44' 06" W], 1♂, ii.2005, G. Q. C. Correia leg. (IBSP 112584, 112597); Murici, Estação Ecológica de Murici, Universidade Federal de Alagoas (UFAL), Barranco, [9° 14' 17.3" S 35° 50' 16.1" W], 1♀, 16.viii.2006, R. Bertani, D. Ortega & R. H. Nagahama leg. (IBSP); 17.viii.2006, R. Bertani, D. Ortega & R. H. Nagahama leg. (IBSP). Espírito Santo: Santa Teresa, [19° 56' 12" S 40° 35' 53" W], 1♂ (MNRJ 6792).

Etymology. The specific name is an adjective derived from the type locality name, Ipióca, Maceió and a famous strong drink called “ypióca” from the same region of Brazil.

Diagnosis: Males of *Actinopus ipioca* resemble those of *A. caxiuana*, *A. nattereri* and *A. itaqui* by the palpal tibia paler than other articles; Resemble *A. rufipes*, *A. itaqui*, *A. mesa* and *A. caxiuana* by the BTA placed medially on prolateral tegular surface; Resemble *A. rufipes*, *A. mesa* and *A. caxiuana* by the delevoped PA, contiguous to PAC on prolateral view; Resemble *A. nattereri*, *A. rufipes*, *A. itaqui*, *A. caxiuana* and *A. utinga* by the palpal tibia paler than other articles; Differ from those of *A. nattereri*, *A. vilhena*, *A. harveyi*, *A. mesa* and *A. utinga* by the inconspicuous serrated area, represented by few cusps, and from all species of the group by the rounded tegulum, as seen on dorsal view; PI sinous on prolateral view; tegulum with a swelling above PA, visible on prolateral and retrolateral views; and surface of embolus lowest than surface of tegulum on retrolateral view (Fig. 88 A–C). Females resemble those of *A. itapitocai* by the bilobed receptacles, with outer lobe higher than inner lobe, but differ by the pore distribution reaching 75% of each receptacle apices, and by bulbous receptacles (Fig. 88 D)

MALE (IBSP 112593): Total length 15.5; Carapace, long 8; wide 7.75. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 84 B). With one bristles between AME–clypeus and one long bristle between ALE–ALP. Many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 84 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 84 E–F). Chelicera with 16 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth and two denticle between the three basal megateeth (Fig. 84 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 85 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 85 A, C). Tibia IV without spines on dorsal surface (Fig. 85 D). Ventral pseudoscopulae occupying 40% of the length of tarsus I, 75% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced,

forming diffuse group of bristles; -On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp yellowish-brown, paler than other articles. Abdomen pale brown (Fig. 84 A). **Eyes:** **Diameters:** PME 0.28, PLE 0.4, ALE 0.56, AME 0.4; MOQ: Length 1.6, front width 3.68, back width 3.12; **Interdistances:** PME–PME 1.92, PLE–PME 0.24, AME–AME 0.28, ALE–AME 1.08, ALE–PLE 0.88, AME–PME 0.72. **Ocular area:** OAL 5.5, OAW 4.625, and IF 2.25. **Body:** Clypeus: 0.375; Fovea: 3.375; Labium: long 1.625; wide 1.25; Chelicera: long 3.5; wide 2.25; Sternum: long 5.125; wide 4.125; Abdomen: long 7; wide 5.5. **Leg measurements:** I: Fe 7.75/ Pa 3.5/ Ti 4.625/ Me 5.5/ Ta 3.125/ total 24.5. II: 5.375/ 2.75/ 4.75/ 5.75/ 3.25/ 21.875. III: 5.375/ 3.5/ 3.5/ 5/ 3.5/ 20.875. IV: 8.5/ 3.25/ 6.25/ 6.5/ 3.5/ 28. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-4, d0, p0-0-1, r0-0-2; Me v3-4-4, d0, p1-2-1, r0-1-2; Ta v0, d0, p0-2-1, r0-4-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0-0-2; Me v3-3-3, d0, p0-2-2, r1-3-4; Ta v0, d0, p1-3-2, r0-5-5. III – Fe v0, d0, p0, r0; Pa v0, d6-14-23, p0-0-2, r0-0-5; Ti v0-0-2, d1-0-15, p0-1-3, r0-0-3; Me v3-1-5, d2-0-2, p0-1-2, r1-2-3; Ta v0, d0, p1-4-5, r0-4-6; IV – Fe v0, d0, p0, r0; Pa v0, d16-6-4, p0, r0; Ti v0, d0, p0, r0; Me v4-4-3, d0, p0-0-2, r0-0-1; Ta v0, d0, p0-2-9, r0-1-3. **Palp:** PA developed, embolus thin, flattened, with three keels (PAc, PI and PS). PI sinuous on prolateral view. Serrated area restricted to a few small cusps on ventral surface of embolar base (Fig. 88 A). PA contiguous to PAc. BTA developed and placed medially on prolateral tegular surface (Fig. 88 A–C).

VARIATION.

MALE (MNRJ 6792): **Palp:** BTA, PS, PI and PAc less pronounced than holotype. PA more pronounced than holotype, above to PA with a little swelling. PI continuous, without a little interruption on the middle of the keel.

FEMALE (IBSP): Total length 17; Carapace, long 7.5; wide 7.375. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 86 B). Many short and long bristles between AME–clypeus, one long and three short bristles between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 86 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of

rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 86 E–F). Chelicera with eight denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with five megateeth (Fig. 86 D). Patella III with distal interrupted crown of thorns and tibiae III with distal developed crown of thorns (Fig. 87 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 87 C). Tibia IV without spines with long bristles on prolaterodorsal surface (Fig. 87 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp yellowish brown; Abdomen pale brown (Fig. 86 A). 22 labial cuspules, 123 in right maxilla and 140 in left. **Eyes:** **Diameters:** PME 0.32, PLE 0.4, ALE 0.4, AME 0.2; **MOQ:** Length 1.52, front width 3.76, back width 3.6; **Interdistances:** PME–PME 2.12, PLE–PME 0.28, AME–AME 0.36, ALE–AME 1.24, ALE–PLE 0.8, AME–PME 0.84. **Ocular area:** OAL 5.375, OAW 4.5, and IF 3.75. **Body:** Clypeus: 0.5; Fovea: 3.75; Labium: long 1.5; wide 1.375; Chelicera: long 4; wide 2.75; Sternum: long 5.375; wide 4.375; Abdomen: long 10.375; wide 8.875. **Leg measurements:** I: Fe 3.25/ Pa 2.875/ Ti 1.875/ Me 2.25/ Ta 1.125/ total 11.375. II: 3.875/ 2.875/ 1.875/ 2.5/ 1.5/ 12.625. III: 4/ 3.5/ 1.375/ 2.875/ 1.25/ 13. IV: 5.5/ 3.5/ 3.25/ 3.625/ 1.5/ 17.375. **Formula** 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p4-12-7, r6-9-12; Me v0-0-1, d0, p8-8-10, r10-10-4; Ta v0-0-3, d0, p3-3-4, r7-4-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r34-32-25; Me v0-0-2, d0, p4-5-4, r3-6-9; Ta v0-0-3, d0, p3-4-4, r5-4-3. III – Fe v0, d0, p0, r0; Pa v0, d0-0-32, p3-0-2, r0-3-16; Ti v0, d1-0-24, p0-0-3, r0; Me v0-0-2, d15-4-7, p3-0-2, r0-3-3; Ta v12-6-16, d0-0-5, p0-1-4, r0-5-7; IV – Fe v0, d0, p0, r0; Pa v0, d12-9-4, p0-0-8, r0; Ti v0, d0, p0-0-4, r0; Me v0-0-2, d0-0-1, p0-0-2, r0; Ta v2-4-8, d0, p2-4-11, r0-0-5. **Spermathecae:** Seminal receptacles slightly asymmetric, longer than wide, with short ducts. Both receptacles bilobated, with outer lobe higher than inner lobe. Pore distribution reaching about 75% of receptacle apices (Fig. 88 D).

Distribution. BRAZIL. Alagoas: Murici and Maceió (Map 5).

Actinopus itaqui new species

Figs 89–91, Map 5

Type material. Holotype. Male from [29° 07' S 56° 33' W], Itaqui, Rio Grande do Sul, Brasil, 24.i.1995, M. C. de Paula leg. (MCN 26526).

Etymology. The specific name is an adjective derived from the type locality name, Itaquí, Rio Grande do Sul.

Diagnosis. Males of *Actinopus itaqui* resemble those of *A. caxiuana*, *A. ipioca* and *A. nattereri* by the palpal tibia paler than other articles; Differ from all other species of the genus, except *A. nattereri*, *A. rufipes*, *A. vilhena*, *A. harveyi*, *A. itapitocai*, *A. xingu*, *A. mesa* and *A. caxiuana*, by the combined presence of three keels, small-serrated area along inferior keel and robust body. Resemble *A. harveyi* and *A. xingu* by PA connected to PAc and *A. nattereri* by blueish coloration spot covering entirely the dorsal surface of abdomen; Differ from *A. nattereri* and *A. harveyi* by the larger PA; from *A. mesa* by the absence of swelling above PA and by the triangular tegulum; from *A. nattereri*, *A. rufipes*, *A. vilhena*, *A. itapitocai*, *A. mesa* and *A. caxiuana* by PA continuous to PI. Resemble *A. caxiuana*, by PS in a horizontal line along prolateral tegular surface, with a larger spacing between PS-PI. Differ from *A. caxiuana* by the more developed PI.

MALE (MCN 26526): Total length 13.75; Carapace, long 7.5; wide 6.88. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 89 B). Without bristles between AME–clipeus and one bristle ALE–PLE. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 89 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apex (Fig. 89 E, F). Chelicera with many denticles along the prolateral row of teeth and some denticles between basal teeth on retrolateral row (Fig. 89 D). Patella and tibia III with distal crown of well developed thorns (Fig. 90 A, B). Patela III and IV with spines on prolaterodorsal face (Fig. 90 A, C). Tibia IV without spines on dorsal surface and with two visible rows of trichobothria (Fig. 90 D). Without ventral pseudoscapulae in tarsi I, ventral pseudoscapulae occupying 30% of the length of II and 100% of III and IV. Pseudoscapula of tarsi II with setae really spaced, forming diffuse group of bristles, on tarsi III and IV, compact. Carapace and chelicera brown, sternum redish brown, coxae, trochantera, femura, patellae, tibia, metatarsi and tarsi of legs redish brown; Tibia of palp pale redish brown, clearer than other articles; Abdomen gray with a big spot mattalic blue in dorsal view (Fig. 89 A). **Eyes: Diameters:** PME 0.28 PLE 0.4 ALE 0.44, AME 0.44; **MOQ:** Length 1.16, front width 3.32, back width 2.96; **Interdistances:** PME–PME 1.84, PLE–PME 0.2, AME–AME 0.2, ALE–AME 0.8, ALE–PLE 0.52, AME–PME 0.6. **Ocular area:** OAL 5.12, OAW 4.37, and IF 2.25.

Body: Clypeus: 0.25; Fovea: 3; Labium: long 1.5; wide 1.25; Chelicera: long 3; wide 2.25; Sternum: long 4.87; wide 4.25; Abdomen: long 6.87; wide 5.25. **Leg measurements:** I: Fe 6.62/ Pa 3.12/ Ti 2.87/ Me 4.62/ Ta 2.37/ total 19.62. II: 6.25/ 3.12/ 3.37/ 4.75/ 2.5/ 20. III: 5.125/ 3.25/ 2.62/ 5.5/ 3/ 19.5. IV: 7/ 3.5/ 5.5/ 6.25/ 2.87/ 25.12. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v0, d0, p0, r0; Me v0-3-3, d0, p3-3-3, r0-3-2; Ta v0, d0, 2-4-4, r1-5-7. II – Fe v0-0-1, d0, p0, r0; Pa v0-0-2, d0, p0, r0-6-5; Ti v1-0-4, d0, p0-2-3, r1-2-2; Me v0-1-3, d0, p1-2-2, r0-2-5; Ta v0-2-2, d0, p3-4-3, r0-6-6. III – Fe v0, d0, p0, r0; Pa v0, d9-23-34, p1-2-3, r0-0-2; Ti v0-0-2, d1-0-12, p0-0-1, r0-1-3; Me v0-0-4, d2-3-3, pv1-3-4, r0-2-6; Ta v0, d0, p0-7-5, r0-5-4; IV – Fe v0, d0, p0, r0; Pa v0, d14-12-4, p0-11-6, r2-0-0; Ti v0-0-2, d0, p0-1-2, r0; Me v0-2-3, d0, p1-6-7, r0; Ta v0, d0, p3-8-11, r0-1-5. **Palp:** PA well-developed continuous of PAc. Embolus with three keels (PAc, PI and PS). BTA developed, placed medially on prolateral tegular surface; inferior surface of tegulum below PI with two denticles in the area of serrated area; embolar base thin (Fig. 91 A–C).

Distribution. BRAZIL. Rio Grande do Sul: Itaquí (Map 5).

Actinopus xingu new species

Figs 92–94, Map 5

Type material. Holotype. Male from 03° 4' S 51° 46' W, Margem Direita do Rio Xingu, Senador José Porfírio, Pará, Brazil, 24.ii.2001 (MPEG 239). **Paratypes:** BRAZIL. Pará: Senador José Porfírio, Margem Direita do Rio Xingu, 03° 4' S 51° 46' O, 1♂, 25.ii.2001 (MPEG 240, 244); 1♂, 02.iii.2001 (MPEG 242); 1♂, 04.iii.2001 (MPEG 243); 3♂, 03.iii.2001 (MPEG 245); Trilha do Censo, 1♂, 23.ii.2002 (MPEG 238)

Etymology. The specific name is an adjective derived from the type locality name, Rio Xingu.

Diagnosis. Males of *A. xingu* resemble those of *A. vilhena*, *A. harveyi*, *A. itapitocai*, *A. nattereri* and *A. utinga* by the BTA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (Fig. 94 A); Resembles *A. vilhena*, *A. nattereri* and *A. utinga* by the keels very close to each other, as seen on prolateral view (Fig. 94 A, B). Resemble *A. vilhena*, *A. harveyi*, *A. itapitocai*, *A. itaquí* and *A. utinga* by

PA continuous to PI. Differ from all other species of the group *nattereri* by a prolateral tegular depression above PA on prolateral tegular margin as seen on dorsal view; distal third of reservoir corrugated (Fig. 94 A).

MALE (MPEG 239): Total length 16.375; Carapace, long 7; wide 6.25. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 92 B). With one short bristle between AME–clypeus. With one long bristle between ALE–ALP and few short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae strongly fused in the middle (Fig. 92 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 92 E, F). Chelicera with seven denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one teeth on basal part. Retrolateral row of teeth with five megateeth and two denticles between the three basal megateeth (Fig. 92 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 93 A, B). Patela III and IV with spines on prolaterodorsal face (Fig. 93 A, C). Tibia IV without spines on dorsal surface (Fig. 93 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale gray with a dorsal *scutum* occupying 1/3 of anterior abdomen (Fig. 92 A). **Eyes: Diameters:** PME 0.36, PLE 0.4, ALE 0.56, AME 0.48; **MOQ:** Length 1.32, front width 2.96, back width 2.8; **Interdistances:** PME-PME 1.56, PLE-PME 0.12, AME-AME 0.2, ALE-AME 0.56, ALE-PLE 0.6, AME-PME 0.4. **Ocular area:** OAL 4.5, OAW 3.75, and IF 2. **Body:** Clypeus: 0.25; Fovea: 2.625; Labium: long 1.375; wide 1.125; Chelicera: long 3.5; wide 1.875; Sternum: long 4.375; wide 3.5; Abdomen: long 7.875; wide 5. **Leg measurements:** I: Fe 6.625/ Pa 3/ Ti 4.25/ Me 4.75/ Ta 2.875/ total 21.5. II: 6.25/ 3/ 3.75/ 5/ 2.875/ 20.875. III: 5.25/ 3.125/ 2.875/ 5.125/ 2.75/ 19.125. IV: 7.25/ 3.25/ 5.75/ 6/ 3.375/ 25.625. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0; Me v3-3-5, d0, p1-0-1, r2-6-6; Ta v0, d0, p0-3-2, r1-6-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-1, d0, p0, r0-0-2; Me v2-4-2, d0, p0-0-2, r0-4-5; Ta v0-0-2, d0, p1-2-4, r1-4-6. III – Fe v0, d0, p0, r0; Pa v0, d3-6-16, p0-0-2, r0; Ti v0, d0-0-12, p0-0-2, r0-0-1; Me v1-0-2, d1-1-2, p1-0-2, r0-2-3; Ta v0, d0, p1-3-4, r0-7-4; IV – Fe v0, d0, p0, r0; Pa v0, d11-11-4, p0-0-1, r0; Ti v0-0-2, d0, p0, r0; Me v0-1-1, d0, p1-

1-3, r0; Ta v0, d0, p0-6-9, r0-3-9. **Palp:** PA well-developed, continuous to PI. Embolus with three keels (PAc, PI and PS). BTA developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; serrated area below PAc with one denticle; embolar base thin and elongated (Fig. 94 A–C).

Distribution. BRAZIL. Pará: Senador José Porfírio (Map 5).

***Actinopus mesa* new species**

Figs 95–97, Map 5

Type material. Holotype. Male from [48° 17' 23" S 14° 05' 42" W], Usina Hidroelétrica Serra da Mesa, Minaçu, Goiás, Brazil, 18–30.xi.1996, A. B. Bonaldo & L. Moura leg. (MCN 28054). **Paratype:** BRAZIL. Mato Grosso: Santa Isabel, [56° 08' S 15° 36' W], 1♂, 8.i.1961, B. Malkin leg. (AMNH).

Etymology. The specific name is an adjective derived from the type locality name, Serra da Mesa.

Diagnosis. Males of *A. mesa* resemble those of *A. ipioca*, *A. itaqui*, *A. rufipes* and *A. caxiuana* by the BTA placed medially on prolateral tegular surface (Fig. 97 A); Resemble *A. nattereri*, *A. vilhena*, *A. harveyi* and *A. caxiuana* by absence of embolar serrated area. Resemble *A. nattereri*, *A. rufipes*, *A. itaqui*, *A. utinga* and *A. caxiuana* by the well-developed and bordered PA. Differ from those of all other species of the group *nattereri* by PA placed in a triangular area and by the hirsute legs and body.

MALE (MCN 28054): Total length 10.875; Carapace, long 5; wide 5. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 95 B). Without bristles between AME-clypeus. With one long bristle between ALE-ALP and many short and weak bristles between posterior eyes-fovea and lateral eyes-edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 95 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 95 E, F). Chelicera with six denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with seven megateeth (Fig. 95 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the

middle (Fig. 96 A, B). Patela III and IV with spines on prolaterodorsal face (Fig. 96 A, C). Tibia IV without spines on dorsal surface (Fig. 96 D). Ventral pseudoscapulae occupying 40% of the length of tarsus I, 60% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale brown with a small blueish spot on anterior dorsal surface (Fig. 95 A). **Eyes: Diameters:** PME 0.2, PLE 0.24, ALE 0.24, AME 0.28; MOQ: Length 0.84, front width 2.24, back width 2; **Interdistances:** PME-PME 1.36, PLE-PME 0.08, AME-AME 0.24, ALE-AME 0.6, ALE-PLE 0.44, AME-PME 0.36. **Ocular area:** OAL 3.625, OAW 2.75, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 2.125; Labium: long 1; wide 0.75; Chelicera: long 2.875; wide 1.5; Sternum: long 3.25; wide 2.75; Abdomen: long 5.5; wide 4.25; 6.25. **Leg measurements:** I: Fe 5/ Pa 2/ Ti 3.125/ Me 3.875/ Ta 2.375/ total 16.375. II: 5/ 2/ 3.125/ 4/ 2.5/ 16.625. III: 4/ 2.125/ 2.125/ 4.25/ 2.75/ 15.25. IV: 3.875/ 2.25/ 3.75/ 4.75/ 2.625/ 17.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-7, d0, p0, r0; Me v3-3-2, d0, p0-0-1, r1-2-2; Ta v1-1-2, d0, p0, r0-1-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0; Me v4-5-7, d0, p0-0-1, r0-3-4; Ta v1-6-1, d0, p0-3-2, r0-2-2. III – Fe v0, d0, p0, r0; Pa v0, d1-4-13, p0-0-2, r0-0-2; Ti v0-0-2, d1-0-8, p0-0-2, r0-0-3; Me v0-0-2, d1-2-1, p1-1-2, r0-0-3; Ta v0, d0, p1-1-1, r0-0-1; IV – Fe v0, d0, p0, r0; Pa v0, d14-5-4, p1-2-1, r0; Ti v0-0-1, d0, p0, r0; Me v1-1-3, d0, p0-0-6, r0-0-1; Ta v0, d0, p0-4-1, r0. **Palp:** PA well-developed, continuous to PAc. Embolus with three keels (PAc, PI and PS). BTA developed, placed medially on prolateral tegular surface; serrated area absent; embolar bases thin and elongated. PA placed in a triangular area (Fig. 97 A–C).

Distribution. BRAZIL. Goiás: Minaçu. Mato Grosso: Santa Isabel (Map 5).

Actinopus caxiuana new species

Figs 98–100, Map 5

Type material. Holotype. Male from 07° 08.149' S 55° 24.818' W, Aeroporto, 250 m, Castelo dos Sonhos, Altamira, Pará, Brasil, 24.xi.2005, C. O. Araújo leg. (MPEG 2538).

Paratypes: BRAZIL. Pará: Portel, FLONA de Caxiuanã, ECFPn, Parcela do projeto ESECAFLOR, 01° 42' 30" S 51° 31' 45" W, 1♂, 15-30.i.2012, D. A. Cunha leg. (MPEG 22278); Plote PPBio Caxiuanã, [01° 57' 36.7920" S 51° 36' 55.0800" W], 1♂, 30.i–

13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (UFMG, UFMT, MNRJ); 3♂, 30.i–13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (CHNUFPI, MPEG 22266, MZSP); 4♂, 30.i–13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (MPEG 22260); 5♂, 30.i - 13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (MPEG 22261, 22262, 22267); 6♂, 30.i–13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (MPEG 22256, 22257, 22263, 22265); 7♂, 30.i–13.ii.2007, M. A. Ribeiro-Junior & D. L. Arco Verde leg. (MPEG 22258, 22259, 22264); Jacareacanga, Km 350 da Transamazônica, 05° 54' 01.296" S 57° 41' 45.5994" W, 1♂, 2010, N. F. Lo-Man-Hung leg. (MPEG 22270); Altamira, Castelo dos Sonhos, 07° 08.149' S 55° 24.818' W, 4♂, 16.xi.2005, C. O. Araújo leg. (MPEG 2537, 1♂ removed for SEM); 08° 13.054' S 55° 00.956' W, 3♂, 13.xi.2005, C. O. Araújo leg. (MPEG 22268, 1♂ removed for SEM); 08° 18' S 55° 05' W, 1♂, 11.xi.2005, C. O. Araújo leg. (MCTP); 08° 20.061' S 55° 12.875' W, 1♂, 12.xi.2005, C. O. Araújo leg. (MPEG 22269); 3♂, 16.xi.2005, C. O. Araújo leg. (MPEG 2536); 3♂ 1J, 13.xi.2005, C. O. Araújo leg. (MPEG 5526). Tocantins: Divisa Lajeado/Palmas, Serra do Lajeado, [10° 15' 23" S 48° 05' 05" W], 1♂, 25.xi.2002, J. Nunes leg. (IBSP 110416); Palmas, Taquarussu, [10° 19' 19" S 48° 10' 10" W], 1♂, 20.xii.2002, J. Nunes leg. (IBSP 110413, 110414).

Etymology. The specific name refers to Floresta Nacional de Caxiuanã, Portel, Pará, Brazil (Map 5).

Diagnosis. Males of *A. caxiuana* resemble those of *A. vilhena*, *A. itapitocai*, *A. itaqui* and *A. nattereri* by the bluish-gray coloration on dorsal surface of abdomen (Fig. 98 A); Resemble *A. nattereri*, *A. ipioca* and *A. itaqui* by palpal tibia paler than other articles; resemble *A. ipioca*, *A. rufipes*, *A. itaqui* and *A. mesa* by BTA placed medially on prolateral tegular surface (Fig. 100 A); Differ from other species included in the group *nattereri*, except *A. itaqui*, by PS in a horizontal line along prolateral tegular surface, with a larger keel surface. Differ from *A. itaqui* by a larger spacing between PS–PI and PI less developed and longer than PS on dorsal view (Fig. 100 A–C).

MALE (MPEG 2538): Total length 15; Carapace, long 7.625; wide 6.875. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 98 B). With few and weak short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with ten sigillae fused

in the middle, two anterior and two posterior sigillae more fused than others (Fig. 98 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 98 E, F). Chelicera with seven denticles along the prolateral row of teeth. Prolateral row of teeth with seven megateeth. Retrolateral row of teeth with six megateeth and one denticle between the two basal megateeth (Fig. 98 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 99 A, B). Patella III and IV with spines on prolaterodorsal face (Fig. 99 A, C). Tibia IV without spines on dorsal surface (Fig. 99 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish brown; Abdomen bluish-dark-gray (Fig. 98 A). **Eyes: Diameters:** PME 0.28, PLE 0.4, ALE 0.52, AME 0.48; **MOQ:** Length 1.32, front width 3.16, back width 2.8; **Interdistances:** PME-PME 1.64, PLE-PME 0.2, AME-AME 0.2, ALE-AME 0.68, ALE-PLE 0.6, AME-PME 0.48. **Ocular area:** OAL 4.625, OAW 3.75, and IF 2.125. **Body:** Clypeus: 0.25; Fovea: 1.625; Labium: long 1.125; wide 1.75; Chelicera: long 2.75; wide 2; Sternum: long 4.75; wide 3.75; Abdomen: long 6.625; wide 5.375. **Leg measurements:** I: Fe 7.5/ Pa 3.125/ Ti 4.625/ Me 4.875/ Ta 3.375/ total 23.5. II: 7/ 3.25/ 4.625/ 5.125/ 3.5/ 23.5. III: 6/ 3.625/ 3.875/ 6.25/ 3.875/ 23.625. IV: 8.375/ 3.75/ 6.25/ 7.125/ 4.25/ 29.75. **Formula** 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v4-4-2, d0, p0-0-1, r0-0-6; Ta v0, d0, p0-1-2, r1-7-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v4-2-3, d0, p0-0-2, r1-2-5; Ta v0, d0, p1-2-5, r2-6-5. III – Fe v0, d0, p0, r0; Pa v0, d5-5-21, p0, r0-0-2; Ti v0, d1-0-12, p0-0-2, r0; Me v4-2-5, d0, p0-1-2, r0-1-2; Ta v0, d0, p0-3-4, r0-5-4; IV – Fe v0, d0, p0, r0; Pa v0, d16-10-5, p0-0-1, r0; Ti v0, d0, p0, r0; Me v2-2-3, d0, p0-2-4, r0-0-1; Ta v0, d0, p0-6-7, r0-3-6. **Palp:** PA well-developed and bordered, continuous to PAc. Embolus with three keels (PAc, PI and PS). BTA developed, placed medially on prolateral tegular surface; serrated area small, represented by two cusps; embolar bases thin and elongated (Fig. 100 A–C).

Distribution: BRAZIL. Pará: Altamira, Portel, and Jacareacanga. Tocantins: Divisa Lajeado/Palmas, and Palmas (Map 5).

Actinopus utinga new species

Figs 101–103, Map 5

Type material. Holotype. Male from 1° 25' 29.38" S 48° 26' 16.86" W, Parque Ambiental de Belém (Utinga), Belém, Pará, Brazil, ii.2010, G. H. F. Azevedo *et al.* leg. (UFMG 99180).

Etymology. The specific name is an adjective derived from the type locality name, Utinga.

Diagnosis. Males of *A. utinga* resemble those of *A. nattereri*, *A. vilhena*, *A. harveyi*, *A. itapitocai*, and *A. xingu* by the BTA displaced dorsally on prolateral tegular surface (Fig. 103 A); Resemble *A. rufipes*, *A. nattereri*, *A. itaqui*, *A. mesa* and *A. caxiuana* by the well-developed PA, rebordered. Differ from other species included in the group *nattereri* by the palpal tibia and cymbium paler than other articles; PI prominent, almost reaching the border of embolus on dorsal view, longer than other keels (Fig. 103 A–C).

MALE (UFMG 9918): Total length 11.875; Carapace, long 5.375; wide 5.125. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 101 B). With a row of short bristles on clypeus border. Without bristles between ALE–ALP and many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 101 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 101 E–F). Chelicera with eight denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with five megateeth (Fig. 101 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle and recurve (Fig. 102 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 102 A, C). Tibia IV without spines on dorsal surface (Fig. 102 D). Ventral pseudoscopulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi dark brown; Tibia of palp and cymbium paler than other articles. Abdomen gray (Fig. 101 A). **Eyes: Diameters:** PME 0.16, PLE 0.24, ALE 0.4, AME 0.32; **MOQ:** Length 1, front width 2.52, back width 2.36; **Interdistances:** PME–PME 1.48, PLE–PME 0.2, AME–AME 0.2, ALE–AME 0.64,

ALE–PLE 0.28, AME–PME 0.48. **Ocular area:** OAL 3.5, OAW 3.125, and IF 2.25. **Body:** Clypeus: 0.125; Fovea: 2; Labium: long 1.25; wide 1; Chelicera: long 3.25; wide 1.625; Sternum: long 3.625; wide 3; Abdomen: long 6; wide 4.25. **Leg measurements:** I: Fe 5.375/ Pa 2.125/ Ti 3.25/ Me 4.25/ Ta 2.25/ total 17.25. II: 5/ 2.25/ 2.5/ 4/ 2.25/ 16. III: 3.625/ 2.375/ 2.25/ 3.875/ 2.375/ 14.5. IV: 4.625/ 2.5/ 4.125/ 4.25/ 2.625/ 18.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-6, d0, p0, r0; Me v3-2-3, d0, p2-2-3, r3-5-4; Ta v0-2-1, d0, p1-2-2, r2-2-6. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-3, d0, p0, r1-7-7; Me v2-2-3, d0, p1-2-2, r1-5-5; Ta v0-1-3, d0, p2-3-2, r1-2-5. III – Fe v0, d0, p0, r0; Pa v0, d3-6-18, p2-2-4, r0-0-2; Ti v0-0-3, d1-0-13, p0-0-3, r0-0-3; Me v1-1-2, d0-0-2, p1-0-0, r1-3-5; Ta v0, d0, p0-0-2, r0-2-2; IV – Fe v0, d0, p0, r0; Pa v0, d17-11-4, p0, r0; Ti v0-0-2, d0, p0, r0; Me v0-1-2, d0-0-1, p0-1-0, r0-0-2; Ta v0, d0, p0-4-7, r0-0-5. **Palp:** PA well-developed and rebordered, continuous to PI. Embolus with three keels (PAC, PI and PS). BTA developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; serrated area absent; embolar bases thinner and elongated (Fig. 103 A–C).

Distribution. BRAZIL. Pará: Belém (Map 5).

Group *crassipes*

Diagnosis. Males of the group *crassipes* are recognized by the following combination of characters: Small total length; patterns of coloration on legs or palpal articles present; embolus with three keels; BTA developed (except on *A. paranensis*); Serrated area on prolateral surface of embolus large, densely covered by relatively large denticles. Females are recognized by the spermathecae with two bilobed receptacles, with outer lobes higher than inner lobes; pore distribution reaching 75% of apical portion on each receptacle.

Species included. *Actinopus crassipes* (Keyserling, 1891); *Actinopus dubiomaculatus* Mello-Leitão, 1923; *Actinopus paranensis* Mello-Leitão, 1920; *Actinopus pusillus* Mello-Leitão, 1920; *Actinopus emas* n. sp.; *Actinopus bocaina* n. sp.; *Actinopus laventana* n. sp.; *Actinopus calamuchita* n. sp.; *A. goloboffi* Ríos, 2014.

***Actinopus crassipes* (Keyserling, 1891)**

Figs 104–107, Map 6

Pachyloscelis crassipes Keyserling, 1891: 3, pl. 1, f. 1. (holotype ♀, Taquara, Rio Grande do Sul, Brazil, NHM, examined).

Pachyloscelis luteipes; Keyserling, 1891: 5.

Actinopus luteipes; F. O. Pickard-Cambridge, 1896: 730; Mello-Leitão, 1923: 22

Actinopus crassipes; F. O. Pickard-Cambridge, 1896: 732; Strand, 1916: 81; Mello-Leitão, 1923: 18, f. 128; Bücherl, 1957: 384, f. 5; Schiapelli & Gerschman, 1962: 72, pl. II, f. 3; Lucas & Bücherl, 1965: 89, f. 1-18; Silva-Moreira *et al.*, 2010: 7; World Spider Catalog, 2018.

Actinopus ceciliae Mello-Leitão, 1931: 11, f. 1. (holotype ♂, Pedras Altas [Cacimbinhas], Rio Grande do Sul, Brazil, MNRJ 4, not located); Silva-Moreira *et al.*, 2010: 7.

Actinopus tarsalis; Mello-Leitão, 1943: 149, misidentification.

Actinopus niger Bücherl, Timotheo & Lucas, 1971: 121, f. 2 (= *A. ceciliae* holotype); Platnick, 1997: 126.

Note. The female holotype of *A. crassipes*, deposited in NHM, was examined only by photos. Drafts provided by arachnologist Stuart Longhorn shows the spermathecae composed by two receptacles, each one divided in two lobes. The outer lobes are much higher than the internal lobes and pore distribution reaches 75% of the apical sector of each receptacle. Unfortunately, no additional female specimen was found, and for this reason no redescription of the female of this species is provided here. On the other hand, several males from Rio Grande do Sul can be identified as belonging to *A. ceciliae* Mello-Leitão (1943). Characters that are coincident with the original description of *A. ceciliae* are the arrangement of the rastellum spines, disposition and size of the eyes, total body length mean, and the copulatory bulb with three keels and twisted duct. Bücherl *et al.* (1971) overlooked the fact that the specimen labeled as *A. niger* by Mello-Leitão was actually the type of *A. ceciliae* and that *A. niger* was just a manuscript name. However, these authors provided illustrations of that specimen, formally identifying it as *A. niger*, and, therefore, inadvertently validating that name (as correctly pointed out by Platnick, 1997). Moreira-Silva *et al.* (2010) considered that: “Bücherl *et al.* (1971) synonymized the manuscript name with *A. crassipes*. So, *Actinopus ceciliae* = *A. crassipes* n. syn.!” We do not believe it is so simple. Bücherl *et al.* (1971) merely stated that the specimen “could be the male of *A. crassipes*”, which hardly could be considered a formal synonymy proposition. Thus, evidence was provided only for the

synonymy of *A. niger* Bücherl *et al.*, 1971 with *A. ceciliae* Mello-Leitão and the current synonymy of *A. ceciliae* with *A. crassipes* was an unjustified act by Moreira-Silva *et al.* (2010). Notwithstanding, since there is no material evidence to disprove this synonymy at this moment, *A. ceciliae* is maintained here as a junior of *A. crassipes*. The redescriptions below was based on images of the holotype, taken by J. Beccaloni.

Diagnosis. Males of *A. crassipes* resemble those of *A. pusillus*, *A. emas* and *A. paranensis* by the metatarsi and tarsi paler than other articles from the legs (Fig. 6 B). Resemble *A. dubiomaculatus*, *A. laventana* and *A. goloboffi* by PA continuous to PI. Resemble *A. emas* and *A. bocaina* by a tegular swelling above PA on prolateral view. Resemble *A. bocaina* and *A. laventana* by the slender tegulum. Resemble *A. dubiomaculatus* by a smooth *scutum*, covering a part of dorsal surface (Fig. 104 A). Differ from all other species of the group *crassipes* by presenting a distal serrated area below PAc restricted to the proximal region of embolus (Fig. 107 A-C); Ventral leg pseudoscapulae occupying 25% of tarsi I, 50% of II; and 5% and 10% of distal ventral surface of metatarsi III and IV, respectively.

MALE (MCN 21999): Total length 7.79; Carapace, long 3.96; wide 4.22. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 104 B). Few bristles between AME–clypeus and in interdistances PME–PME and PLE–PLE. Sternum with eight sigillae fused in the middle (Fig. 104 C). Rastellum subtriangular, with few spines on apice (Fig. 104 E–F). Chelicera with denticles along the prolateral row of teeth and between megateeth on prolateral and retrolateral rows. Prolateral row of teeth decreasing on distal-proximal direction (Fig. 104 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 105 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 105 A, C). Tibia IV without spines on dorsal surface (Fig. 105 D). Ventral pseudoscapulae occupying 25% of the length of tarsi I, 50% of II and 100% of III and IV. Ventral pseudoscapulae occupying 5% of the length of metatarsi I, 10%, respectively. Pseudoscapula of tarsi I and II, and metatarsi III and IV with setae spaced, forming diffuse group of bristles; on tarsi III and IV, compact. Carapace and chelicerae dark-brown; Sternum pale brown; Coxae, trochantera, femora, patellae and tibia dark brown; Metatarsi and tarsi orangewish (Fig. 6 B); Abdomen dark-gray, with a smooth and blueish *scutum*, covering 50% of dorsal surface (Fig. 104 A). **Eyes: Diametres:** PME

0.1, PLE 0.16, ALE 0.33, AME 0.25; MOQ: Leght 1, front width 0.77, back width 0.17; **Interdistances:** PME–PME 1.4, PLE–PME 0.11, AME–AME 0.22, ALE–AME 0.77, ALE–PLE 0.4, AME–PME 1. **Ocular area:** OAL 5.1, OAW 3.2, and IF 1.5. **Body:** Clypeus: 0.16; Fovea: 1.5; Labium: long 1; wide 1.2; Chelicera: long 3.4; wide 1.5; Sternum: long 3.6; wide 3.1; Abdomen: long 5.5; wide 4.4. **Legs:** I: Fe 5.2/ Pa 2.3/ Ti 3.3/ Me 4.2/ Ta 2.8/ total 18.6. II: 5/ 2.3/ 3.2/ 4.4/ 2.8/ 17.8. III: 4/ 2.3/ 2.7/ 4.5/ 3.1/ 16.8. IV: 5/ 2.5/ 4.6/ 4.8/ 3.4/ 20.55. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-5-5, d0, p0, r0; Me v0-0-2, d0, p1-1-1, r2-4-4; Ta v0-2-1, d0, p1-2-4, r2-8-6. II - Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-3-5, d0, p0, r0-4-4; Me v5-5-5, d0, p1-1-1, r0-0-1; Ta v0-1-2, d0, p2-3-4, r4,6,6. III - Fe v0, d0, p0, r0; Pa v0, d7-13-25, p1-0-1, r0-0-2; Ti v0-0-3, d1-0-15, p0-1-2, r0-4-4; Me v2-8-7, d4-3-1, p0-1-2, r0-0-2; Ta v0-0-1, d0, p2-2-5, r0-5-6; IV - Fe v0, d0, p0, r0; Pa v0-0-1, d7-19-8, p0-0-1, r0; Ti v1-3-3, d0, p1-1-1, r0; Me v2-6-8, d0, p0-1-2, r0; Ta v0, d0, p2-7-9, r1-6-10. **Palp:** BTA developed and placed medially on prolateral tegular surface. Embolus with three developed keels (Pac, PI and PS), demarcated in all three views. Serrated area distal to the Pac, covered by Pac on dorsal view but apparent on prolateral and retrolateral views. Serrated area restricted to proximal region of embolus. Tegulum thin, PA developed and continuous to PI (Fig. 107 A–C).

VARIATION:

MALES (n=10): **Eyes: Diametres:** PME 0.11–0.22, PLE 0.16–0.33, ALE 0.27–0.33, AME 0.22–0.25; MOQ: Length 0.77–1, front width 0.55–0.77, back width 1.4–1.8; **Interdistances:** PME–PME 1.1–1.5, PLE–PME 0.11–0.16, AME–AME 0.11–0.22, ALE–ALE 0.44–0.77, ALE–PLE 0.27–0.7, AME–PME 0.77–0.1. **Ocular area:** OAL 3.3–5.1, OAW 2.5–3.2, and IF 1.2–1.8. **Body:** Total length: 8.3–13.3; Carapace: long 3.4–5.4; wide 4.1–5.8; Clypeus: 0.11–0.22; Fovea: 1.1–1.8; Labium: long 0.88–1.1; wide 0.8–1.2; Chelicera: long 2.3–3.5; wide 1.3–1.6; Sternum: long 3.2–3.6; wide 2.5–3.1; Abdomen: long 4.2–7.2; wide 3.4–5.5. **Legs:** I: Fe 4.5–5.2/ Pa 1.8–2.3/ Ti 2.8–3.4/ Me 3.2–4.2/ Ta 2.1–2.8/ total 14.4–17.9. II: 4.2–5/ 1.8–2.3/ 2.7–3.3/ 3.4–4.4/ 2.1–2.8/ 14.2–17.8. III: 3-5/ 1.8–2.3/ 2–3.2/ 3.5–4.7/ 2.3–3.4/ 12.6–18.6. IV: 3.8–5.5/ 1.7–2.5/ 3.4–4.6/ 3.6–4.8/ 2.5–3.4/ 15–17.5.

Distribution– BRAZIL. Rio Grande do Sul: São Francisco de Paula, Torres, Canela, Porto Alegre, and Pelotas (Map 6).

Examined material. BRAZIL. *Rio Grande do Sul*: São Francisco de Paula, Passo do Inferno, 1♂, 27.i.1999, C. Mansan leg. (MCN 30536); Potreiro Velho, 1♂, 22–25.iv.1999, A. A. Lise leg. (MCTP 14481); Torres, 1♂, 13.ii.1972, A. A. Lise leg. (MCN 3496); 4♂, 20.ii.1974, T. de Lema and A. A. Lise leg. (MCN 1973); Canela, 1♂, 03.ii.1967, A. A. Lise leg. (MCN 544); Porto Alegre, 1♂, 05.ii.1969, A. A. Lise leg. (MCN 26); 19.iv.1985, A. A. Lise leg. (MCN 13269); 16.iv.1991, L. de A. Moura leg. (MCN 20983); 11.iii.1992, A. M. Fonseca leg. (MCTP 1598); 08.iv.1995, B. M. Unpierre leg. (MCTP 6866); 14.iii.1996, A. Silva leg. (MCN 27416); 19.iv.1996, L. Moura leg. (MCN 27640); 2♂, 01.v.1997, E. Caberlou leg. (MCTP 9637); (Jardim Botânico), 1♂, 07.iv.1986, A. D. Brescovit leg. (MCN 14544); 17.iii.1992, A. D. Brescovit leg. (MCN 21999); 04.iii.1994, A. D. Brescovit leg. (MCN 25200); 10.iv.1994, A. D. Brescovit leg. (MCN 25385); 31.iii.1999, D. Cognato leg. (MCN 30740); 28.iii.2001, R. Ott leg. (MCN 33763); 22.iii.2002, R. Araújo leg. (MCN 34332); (campus da Fundação Zoobotânica), 1♂, iii.1995, R. Beheregaray leg. (MCTP 6196); (Lomba do Pinheiro), 2♂, 12.iii.1978, A. G. Ferreira leg. (MCN 7813); (bairro do Lami), 1♂, 10.iii.1985, S. S. Chula leg. (MCN 13240); Pelotas, 15-16.iii.1996, L. Moura leg. (MCN 27476).

***Actinopus dubiomaculatus* Mello-Leitão, 1923**

Figs 108–112, Map 6

Actinopus dubiomaculatus Mello-Leitão, 1923: 20 (holotype ♂, Franca, São Paulo, Brazil, MZSP, not located); World Spider Catalog, 2018.

Note. The material examined can be identified as *A. dubiomaculatus* by patterns of diagnostic coloration of articles legs, cephalothorax and chelicerae, the average of total length coincident, the size of the ventral metatarsal and tarsal pseudoscapulas and tibia without spines in dorsal view. The material examined can be recognized as *A. dubiomaculatus* by the geographic distribution in the state of São Paulo, with the addition of material provided by the present work extended to Mato Grosso and Rio Grande do Sul.

Diagnosis. Males of *A. dubiomaculatus* resemble those of *A. crassipes*, *A. laventana* and *A. goloboffi* by PA continuous to PI, and those of all species of the group *crassipes*,

except *A. laventana* and *A. paranensis*, by BTA placed medially on prolateral tegular surface. Resemble all species of group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc, continuous to proximal area of PAc (Fig. 112 A–C). Resemble *A. pusillus* and *A. paranensis* by tibia, tarsi and metatarsi paler than remaining articles. Differ from all other species of the group by ventral scopulae occupying 25% of the distal portion of tarsi II and metatarsi IV, with diffuse setae; Paraembolic apophysis inconspicuous (Fig. 112 A, C); basal portion of sternum tapering (Fig. 108 C). Females of *A. dubiomaculatus* and *A. goloboffi* differ from those of *A. laventana* by receptacles without lateral swelling (Fig. 112 D–H); *scutum* delicate and slightly sclerotized, occupying about 1/3 of abdomen dorsum (Fig. 110 A).

MALE (MZSP 7636): Total length 7.79; Carapace, long 3.96; wide 4.22. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 108 B). Few bristles between AME–clypeus and forming recurve rows on interdistances PME–PME and PLE–PLE. Sternum with eight sigillae weakly demarcated and fused in the middle, and shape of basal portion of sternum tapering (Fig. 108 C). Rastellum protuberant, inverted V-shaped, hirsute, with a row of strong spines in apice (Fig. 108 E–F). Subungual sulc of chelicera with small and widespread denticles. Prolateral row of teeth with teeth decreasing in distal-proximal way. Retrolateral row of teeth with subequal teeth in size (Fig. 108 D). Patella and tibia III with distal crown of well developed thorns, not interrupted in the middle (Fig. 109 A–B). Patela III and IV with spines on prolaterodorsal face, along of articles, and one dorsal spine (Fig. 109 A, C). Tibia IV without spines on dorsal surface (Fig. 109 D). Ventral scopulae occupying 100% of tarsi III and IV, and occupying 25% of the tarsi II and metatarsi IV, with difuse bristles in distal area of articles. Carapace and chelicerae pale brown; Sternum yellowish-brown, coxae, trochantera, femora and patellae pale brown; Tibia, metatarsi and tarsi orange; Abdomen pale gray, with a smooth *scutum*, where inserts of the bristles are more chitinized than the rest of the abdomen (Fig. 108 A). **Eyes:** **Diameters:** PME 0.17, PLE 0.21, ALE 0.17, AME 0.3; MOQ: Length 0.67, front width 0.53, back width 1.28; **Interdistances:** PME–PME 1, PLE–PME 0.06, AME–AME 0.15, ALE–AME 0.44, ALE–PLE 0.23, AME–PME 0.31. **Ocular area:** OAL 2.9, OAW 2.2, and IF 1.63. **Body:** Clypeus: 0.16; Fovea: 1.63; Labium: long 0.9; wide 0.72; Chelicera: long 2.34; wide 1.24; Sternum: long 2.97; wide 2.39; Abdomen: long 3.83; wide 3.4. **Leg measurements:** I: Fe 4.6/ Pa 1.79/ Ti 2.86/ Me 3.39/ Ta 2.12/ total 14.76.

II: 1.77/ 4.31/ 2.71/ 1.96/ 2.82/ 13.57. III: 3.21/ 1.84/ 1.8/ 3.41/ 2.39/ 12.65. IV: 4.41/ 1.94/ 3.05/ 3.86/ 2.47/ 15.73. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-3-7, d0, p0-0-1, r0-0-2; Me v2-3-3, d0, p1-1-2, r1-3-4; Ta v0-2-3, d0, p1-2-2, r0-2-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-5-4, d0, p0-0-1, r0-3-4; Me v1-2-4, d0, p2-1-2, r3-3-2; Ta v0-0-2, d0, p0-3-5, r0-3-4. III – Fe v0, d0, p0, r0; Pa v0-0-1, d2-9-17, p0-0-3, r0-0-3; Ti v4-1-4, d1-0-13, p1-1-2, r0-0-1; Me v0-4-3, d2-1-0, p1-0-2, r0-0-4; Ta v0-0-1, d0, p1-1-4, r0-2-2; IV – Fe v0, d0, p0, r0; Pa v0-1-1, d18-9-4, p0, r0; Ti v2-2-3, d0, p0-1-1, r0; Me v2-2-1, d0, p1-2-2, r0; Ta vx, d0, p0-3-7, r0-1-0. **Palp:** BTA developed, displaced medially on prolateral tegular surface; Embolus with three developed and well demarcated keels (PAC, PI and PS), in dorsal and retrolateral views. Serrated area distal to PAC, covered by PAC in dorsal view. Serrated area apparent in prolateral and retrolateral views, continuous to proximal sector of PAC. Thin tegulum, smooth PA, continuous to PI (Fig. 112 A–C).

FEMALE (MCN 13243): Total length 11.74; Carapace, long 4.62; wide 4.9. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve. Long and short bristles between AME–clypeus e forming straight and recurve rows in interdistances PME–PME and PLE–PLE. Short bristles in interdistances AME–ALE and between lateral eyes–edge of carapace (Fig. 110 B). Sternum with eight sigillae strongly fused in the middle (Fig. 110 C). Rastellum protuberant, digitiform, with prolateral part subquadrate, hirsute, with many short spines covering the dorsal area of rastellum (Fig. 110 E–F). Small denticles widespread in subungual sulc of chelicera. Prolateral row of teeth decreasing indistal–proximal way. Retrolateral row of teeth, at basal part, with small denticles in the middle of teeth (Fig. 110 D). Patella III and tibia III with distal developed crowns of thorns (Fig. 111 A–B). Patella IV with prolaterodorsal short spines along the extension of article (Fig. 111 C). Tibia IV without spines and with long bristles on dorsal and prolaterodorsal surfaces (Fig. 111 D). Without scopula. Carapace, chelicerae, sternum and legs yellowish-brown; abdomen pale brown with a slightly sclerotized scutum, which occupies about 1/3 of the length of the abdomen (Fig. 110 A). 14 labial cuspules, 96 in right maxilla and 103 in left. **Eyes: Diameters:** PME 0.13, PLE 0.24, ALE 0.25, AME 0.19; **MOQ:** Length 0.81, front width 0.57, back width 1.56; **Interdistances:** PME–PME 1.23, PLE–PME 0.11, AME–AME 0.19, ALE–AME 0.65, ALE–PLE 0.51, AME–PME 0.52. **Ocular area:** OAL 4.16, OAW 2.64, and IF 2.25. **Body:** Clypeus: 0.18; Fovea: 2.26; Labium: long

1.47; wide 1.06; Chelicera: long 3.32; wide 1.93; Sternum: long 3.24; wide 2.97; Abdomen: long 7.12; wide 5.74. **Leg measurements:** I: Fe 2.75/ Pa 1.84/ Ti 1.13/ Me 1.64/ Ta 1.17/ total 8.53. II: 2.84/ 1.87/ 1.06/ 1.66/ 1.04/ 8.47. III: 2.67/ 2.15/ 0.64/ 1.73/ 1.1/ 8.29. IV: 3.64/ 2.25/ 1.62/ 2.08/ 1.18/ 10.77. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-1, d0, p0-0-2, r1-3-3; Me v0-4-3, d0, p2-4-3, r2-6-3; Ta v0-1-3, d0, p3-5-2, r3-3-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r9-14-12; Me v0-3-4, d0, p0-3-3, r0-6-4; Ta v0-1-4, d0, p4-3-2, r2-2-4. III – Fe v0, d0, p0, r0; Pa v0, d0-1-33, p1-0-0, r0-6-7; Ti v0, d9-10-18, p0-0-2, r1-5-9; Me v0-0-4, d3-6-7, p0, r2-7-6; Ta v15-21-13, d6-9-10, p2-4-3, r0-4-5; IV – Fe v0, d0, p0, r0; Pa v0, d19-25-10, p2-2-1, r0; Ti v0, d0, p0-2-0, r0; Me v0-0-3, d0-0-2, p0-3-2, r0; Ta v1-9-10, d0-2-3, p1-4-3, r0-2-3. **Spermathecae:** Represented by two seminal receptacles, bilobed, longer than wide, with short duct. External lobes longer than internal lobes. Pore distribution reaching 75% of apical area of each receptacle (Fig. 112 D–H).

VARIATION.

MALES (n=10): Eyes: Diameters: PME 0.14–0.22, PLE 0.16–0.22, ALE 0.15–0.44, AME 0.2–0.39; **MOQ:** Length 0.56–0.89, front width 0.51–0.78, back width 1.16–1.56; **Interdistances:** PME–PME 0.87–1.22, PLE–PME 0.03–0.17, AME–AME 0.11–0.67, ALE–AME 0.39–0.56, ALE–PLE 0.23–0.44, AME–PME 0.28–0.40. **Ocular area:** OAL 2.67–4, OAW 1.84–3, and IF 1.44–1.91. **Body:** Total length: 6.53–12.33; Carapace: long 3.18–5.33; wide 3.67–5; Clypeus: 0.09–0.22; Fovea: 1.36–2; Labium: long 0.9–1.22; wide 0.7–1.11; Chelicera: long 1.78–2.78; wide 1.1–1.56; Sternum: long 2.52–3.44; wide 2.13–3; Abdomen: long 3.42–6.89; wide 2.98–5.11. **Leg measurements:** I: Fe 4–5.56/ Pa 1.64–2.33/ Ti 2.39–3.33/ Me 2.8–4.22/ Ta 2.02–2.78/ total 12.85–17.89. II: 4.05–5.11/ 1.65–2.22/ 2.39–3.22/ 1.96–4.33/ 2.07–2.82/ 13.16–17.56. III: 2.96–4/ 1.34–2.33/ 1.8–3.22/ 2.77–4.44/ 1.99–2.89/ 10.6–16.33. IV: 3.93–5.67/ 1.82–2.44/ 2.84–4.44/ 2.75–4.78/ 2.17–3.22/ 13.51–20.22. **FEMALES (n=10): Eyes: Diameters:** PME 0.13–0.3, PLE 0.2–0.4, ALE 0.22–0.35, AME 0.14–0.26; **MOQ:** Length 0.71–1.4, front width 0.44–0.8, back width 1.27–2.61; **Interdistances:** PME–PME 1.01–2.09, PLE–PLE 0.06–0.25, AME–AME 0.09–0.22, ALE–AME 0.66–1.45, ALE–PLE 0.48–0.85, AME–PME 0.4–1.08. **Ocular area:** OAL 3.7–5.46, OAW 2.43–3.59, and IF 1.73–3.34. **Body:** Total length: 10.96–16.49; Carapace: Length 4.05–6.04; wide 4.16–6.45; clypeus: 0.11–0.34; fovea: 1.83–3.04; Labium: Length 1.25–2.08; wide 0.88–1.49; chelicera: length 2.65–4; wide 1.72–2.55; sternum: length 2.86–4.42;

wide 2.57–4.25; abdomen: length 6.28–9.25; wide 4.51–7.13. Legs: I: Fe 2.4–3.71/ Pa 1.64–2.47/ Ti 1.08–1.7/ Me 1.3–2.16/ Ta 0.79–1.23/ total 7.37–11.16. II: 2.36–3.69/ 1.48–2.46/ 1.06–1.63/ 1.33–2.25/ 0.59–1.31/ 6.93–11.31. III: 2.28–3.51/ 1.9–2.86/ 0.64–1.21/ 1.26–2.31/ 0.69–1.31/ 7.03–10.56. IV: 3.09–4.85/ 1.99–2.92/ 1.62–2.51/ 1.01–2.73/ 0.65–1.43/ 9.52–14.29. **Spermathecae:** Varies subtly in the apex format (Fig. 112 A–H). Carapace and chelicerae in specimens recently fixed dark-brown; brown sternum; dark-brown legs; tibia, metatarsi and tarsi orange; abdomen gray.

Distribution. BRAZIL. Minas Gerais; Mato Grosso do Sul: Campo Grande; São Paulo: Jaboticabal, Campos do Jordão, Itu, Pirapora do Bom Jesus, Santana de Parnaíba, Guarulhos, Barueri, Suzano, São Paulo, Itapevi, Cotia, Embu, São Bernardo do Campo, Praia Grande, Pirassununga; Rio Grande do Sul: Santa Maria, Camobi, Viamão, Passo do Vigário, Guaíba (Map 6).

Examined material. BRAZIL: 1♂ (MZSP 165); *Minas Gerais:* [15° 38' S 49° 57' W], 1♂, iii.1962, S. Kawall leg. (IBSP 103597); *Mato Grosso do Sul:* Campo Grande, [20° 26' 59.9994" S 54° 37' 0.0006" W], 1♂, 21.ii.1993 (IBSP 110495); *São Paulo:* Jaboticabal, [21° 15' 59.9976" S 48° 19' 0.0012" W] 1♂, iii.1954, J. Paranelli leg. (IBSP 103199); Brooklin, [21° 40' 44" S 49° 44' 33" W], 1♂, 06.ii.1962, F. Grossman leg. (MZSP 8278); Boa Esperança do Sul, [21° 59' S 48° 23' W], 1♂, 8.vii.1948, Delegacia de Polícia de Boa Esperança leg. (IBSP 101523); Campos do Jordão, [22° 43' 59.9982" S 45° 34' 59.9988" W], 1♂, iii.1963, S. Kawall leg. (IBSP 103646); Itu, [23° 15' 59.9976" S 47° 19' 0.0012" W], 1♂, 27.ii.1998, J. Weber leg. (IBSP 110587); 07.ii.2002, A. C. G. Ribeiro leg. (IBSP 109529); iii.2006, C. Pavanis L. leg. (IBSP 113460); Centro de Animais Peçonhentos, [23° 15' 60" S 47° 17' 59" W], 1♂, 25.i.2005, R. D'Avila leg. (IBSP 112340); Pirapora do Bom Jesus, [23° 23' 59.9994" S 47° 0' 0" W], 1♂ (IBSP 114530); Santana de Parnaíba, [23° 26' 39" S 46° 55' 04" W], 1♂, 20.ii.1987, V. Fernandes leg. (IBSP 110483); 2♂ (IBSP 142546); (3 km do Centro de Santana de Parnaíba), 1♂, V. 07.ii.1987, Fernandes leg. (IBSP 110572); Guarulhos, [23° 27' 47" S 46° 31' 59" W], 1♂, M. Andrade leg. (IBSP 110560); Barueri, [23° 30' 59.9976" S 46° 52' 59.9988" W], 1♂, 20.i.1966, K. Lenko leg. (MZSP 5706); Suzano, [23° 31' 59.9982" S 46° 19' 59.9988" W], 1♂, 04.i.1995, R. Martins leg. (IBSP 110485); Distrito de Guaianases, [23° 32' 36" S 46° 24' 38" W] 1♂, ii.1950, M. Carrera leg. (MZSP 22117); Ipiranga, [23° 32' S 46° 38' W], 1♂ B. A. M. Soares leg. (MZSP

22116); ii.1924, R. Spitz leg. (MZSP 3144); i.1929, R. Spitz leg. (MZSP 22120); V.1941, J. Barroso leg. (MZSP 3142); 1941, Nuncio leg. (MZSP 3160); i.1942, Lane leg. (MZSP 3143); 20.ii.1942, G. Pastore leg. (MZSP 22123); F. Lane leg. (MZSP 22119); Horto do Museu do Ipiranga, [23° 32' 52" S 46° 38' 09" W], 1♂, 30.iii.1949, Rabello leg. (MZSP 8276); Itapevi, [23° 33' S 46° 55' W], 1♂, 17.iii.1995, C. L. A. Santos leg. (IBSP 110480); São Paulo, [23° 33' S 46° 37' W], 1♂, 1944 (MZSP 8524, IBSP 114529); 21.ii.1992, N. P. Emerique leg. (IBSP 110574); 27.iii.2002, C. Hulten leg. (IBSP 119631); Campus da Universidade de São Paulo (USP), [23° 33' 52.0518" S 46° 42' 51.3396" W], 1♂, 02.iv.2007, L. M. Almeida leg. (IBSP 113640); Butantan, [23° 35' 23" S 46° 45' 24" W], 1♂, J. de Souza leg. (IBSP 103808); ii.1971, J. Soller Lopes leg. (IBSP 104091); Morumbi, [23° 35' 46.2798" S 46° 42' 15.642" W], 2♂, i.1960, C. Ostrand leg. (IBSP 103525); Cotia, [23° 36' S 46° 55' W], 1♂, 05.iii.1990, F. M. G. Silva leg. (IBSP 110585); 08.i.2006, L. C. dos Santos leg. (IBSP 113260); Embu, [23° 38' 59.9994" S 46° 51' 0" W] 2♂, xii.1980, V. R. von Eickstedt leg. (IBSP 104534); 1♂ (IBSP 104225); 1♂, V. R. D. Eickstedt leg. (IBSP 110572); São Bernardo do Campo, [23° 41' 59.9994" S 46° 32' 59.9994" W] 1♂, ii.1926, F. Spitz leg. (MZSP 7635); 1♂, iii.1927, R. Spitz leg. (MZSP 7636); Praia Grande, [24° 0' 0" S 46° 23' 59.9994" W], 1♂, 1945, M. Carrera leg. (MZSP 7811); *Rio Grande do Sul*: Santa Maria, [29° 41' 04" S 53° 48' 25" W], Camobi, 1♀, IX-X.1989, N. Samarila leg. (IBSP 110565); Viamão, [30° 4' 59.9982" S 51° 1' 59.9982" W], 1♀1♂, 13.iii.1985, M.C. Balestrin leg. (MCN 13243); 1♀, 07.iv.1995, C. S. Azevedo leg. (MCTP 3059, MCTP 4834); 3♀, 08.iv.1995, C.S. Azevedo leg. (MCN 28470); 1♀, 07.iv.1996, C. S. Azevedo leg. (MCTP 17681); 1♀, 18.iv.1994, R. Balestrin leg. (MCTP 6222); Passo do Vigário, [30° 5' 26.7144" S 50° 58' 35.5434" W], 3♀, 22.iii.1993, R. Balestrin leg. (MCTP 3074); Guaíba, [30° 6' 51.048" S 2847051° 19' 41.2068" W], Sertão Santana, 1♀, 10.iv.1985, M. Rosenau leg. (MCN 13253).

Examined material (burned in fire). BRAZIL: *São Paulo*: Pirassununga, Cachoeira da Ema, [21° 55' 01" S 47° 20' 59" W] 1♂, 03.x.1982, F. Molina leg. (IBSP 108609); São Paulo [23° 32' 56" S 46° 38' 20" W], 1♂ (114528); vii.1975, A. S. Gomes leg. (IBSP 115434).

Actinopus paranensis Mello-Leitão, 1920

Figs 113–115, Map 6

Actinopus paranensis Mello-Leitão, 1920: 58 (holotype ♂, Paraná, Brazil, MNRJ 000002, examined); Bücherl, Timotheo & Lucas, 1971: 121, f. 3–4; World Spider Catalog, 2018.

Diagnosis. The male of *Actinopus paranensis* resembles males of *A. pusillus*, *A. emas* and *A. bocaina* by PA continuous to PAc. Resembles all species of the group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc and continuous to proximal area of PAc (Fig. 115 A–C). Resembles *A. pusillus* and *A. calamuchita* by palpal tibia, tarsi and metatarsi paler than other articles. Resembles *A. bocaina* and *A. laventana* by palpal tibia paler than other articles. Differs from all other species of the group by the absence of BTA (Fig. 115 A–B).

MALE (Holotype, MNRJ 000002): Total length 12.75; Carapace, long 6.25; wide 5.75. Carapace anterior part tapering, subquadrate. Anterior eye row slightly procurved, posterior row recurve (Fig. 113 B). Without bristles between AME–clypeus. Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 113 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with megateeth and teeth between megateeth. Retrolateral row of teeth with megateeth and one teeth between second and third basal megateeth (Fig. 113 D). Patella and tibia III with distal crown of well developed thorns, interrupted in the middle on patella III and not interrupted in the middle on tibia III (Fig. 114 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 114 A, C). Ventral scopulae absent on tarsus I and II and occupying 100% of the length of III and IV. Scopula of tarsi III and IV, compat. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae tibiae redish brown; metatarsi and tarsi yellowish brown and abdomen pale brown (Fig. 113 A). **Eyes:** **Diameters:** PME 0.2 PLE 0.28 ALE 0.44, AME 0.32; MOQ: Length 1.04, front width 2.6, back width 2.32; **Interdistances:** PME–PME 1.56, PLE–PME 0.08, AME–AME 0.18, ALE–AME 0.6, ALE–PLE 0.48, AME–PME 0.48. **Ocular area:** OAL 4.25, OAW 3.375, and IF 1.92. **Body:** Clypeus: 0.36; Fovea: 2.6; Labium: long 1.2; wide 1.12; Chelicera: long 3.04; wide 1.72; Sternum: long 4; wide 3.24; Abdomen: long 6.25; wide 5.625. **Leg measurements:** I: Fe 7.12/ Pa 2.6/ Ti 4.72/ Me 5.52/ Ta 3.08/ total 23.04.II: 6.875/ 4/ 6.5/ 7.625/ 4.375/ 29.375. III: 5.75/ 3/ 3.75/ 6.25/ 3.75/ 22.5.IV: 7.75/ 3/ 7.125/ 6.75/ 4.25/ 28.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-0-1, r0-0-3; Me v0-0-2, d0, p1-2-0, r3-6-7; Ta v0-2-3, d0, p1-3-

2, r3-4-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v1-1-2, d0, p2-4-6, r1-2-3; Ta v03-4, d0, p2-4-5, r2-5-2. III – Fe v0, d0, p0, r0; Pa v0, d13-16-24, p0-0-3, r0-0-2; Ti v0, d1-0-12, p0-0-4, r0-0-4; Me v0-1-2, d0, p1-1-2, r1-3-5; Ta v0-0-3, d0, p3-3-5, r0-3-4; IV – Fe v0, d0, p0, r0; Pa v0, d20-11-5, p2-2-0, r0; Ti v0-0-1, d0, p0, r0; Me v0-1-3, d0, p1-2-3, r0-0-1; Ta v0, d0, p2-6-9, r0-2-6. **Palp:** PA well developed, embolus with three keels (Pac, PI and PS). BTA absent; prolateral surface of tegulum with a developed serrated area continuous to PAc; embolar bases thinner than basal apice (Fig. 115 A–C).

Distribution. Known only from the type locality, Paraná, Brazil.

Actinopus pusillus Mello-Leitão, 1920

Figs 116–118, Map 6

Actinopus pusillus Mello-Leitão, 1920: 59 (holotype ♂, Franca, São Paulo, Brasil, MZSP, not located); World Spider Catalog, 2018.

Note. The material examined was attributed to *A. pusillus* by the following characters coincident with the original description: unique pattern formed by the crowns of spines in dorsal surface of the patellae III and IV; coloration of cephalothorax and chelicerae, total length average, rastellum with few short spines, and the size of ventral scopulae in tarsi and metatarsi. The records are also coincident with the type locality.

Diagnosis. Males of *A. pusillus* resemble *A. emas*, *A. bocaina* and *A. paranensis* by PA continuous to PAc. Resemble all species of the group *crassipes*, except *A. laventana* and *A. paranensis*, by BTA placed medially on prolateral tegular surface. Resemble all species of the group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc and continuous to proximal area of PAc (Fig. 118 A–C). Resemble *A. dubiomaculatus* and *A. paranensis* by tibia, tarsi and metatarsi paler than other articles. Resemble *A. bocaina*, *A. laventana* and *A. paranensis* by palpal tibia paler than other articles. Differ from all other species of the group by the ventral scopulas occupying 25% of the distal portion of tarsi II and metatarsi IV, with diffuse setae; chelicera with only three or four prolateral denticles along the subungual sulc, (Fig. 116 D); PS and PI length on dorsal view reaching nearly 25% of the embolus length (Fig. 118 A–C).

MALE (IBSP 113194): Total length 7.19; Carapace, long 2.88; wide 2.95. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 116 B). With few bristles between AME–clypeus, between lateral eyes–edge of carapace and forming recurves rows in interdistances PME–PME and PLE–PLE. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 116 C). Rastellum protuberant and digitiform, with a row with six or seven spines in apice (Fig. 116 E–F). Chelicera with subiguais teeth in prolateral and retrolateral rows, and denticles widespread along the prolateral row of teeth, with a low number of denticles (Fig. 116 D). Patella III and tibia III with distal crown of well developed thorns, not interrupted in the middle (Fig. 117 A–B). Patella III with spines along dorsal surface and patella IV with spines on prolaterodorsal surface (Fig. 117 A, C). Tibia III with one or two dorsal spines (Fig. 117 B). Ventral scopulae occupying 75% of the length of tarsi I and 100% of II, III and IV. Scopula of tarsi I and II occupying 30% and 3% of the length of tarsi, with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicerae pale brown; Sternum yellowish brown; Coxae, trochantera, femora and patellae pale brown; Tibia, metatarsi and tarsi pale orange; Tibia of palp pale than other articles; And abdomen dark-gray, with a blueish dorsal spot (Fig. 116 B). **Eyes: Diameters:** PME 0.11, PLE 0.15, ALE 0.2, AME 0.12; **MOQ:** Length 0.59, front width 0.47, back width 1.02; **Interdistances:** PME–PME 0.77, PLE–PME 0.07, AME–AME 0.23, ALE–AME 0.36, ALE–PLE 0.32, AME–PME 0.28. **Ocular area:** OAL 2.36, OAW 1.78, and IF 1.14. **Body:** Clypeus: 0.07; Fovea: 1.06; Labium: long 0.85; wide 0.59; Chelicera: long 1.96; wide 0.88; Sternum: long 2.3; wide 1.79; Abdomen: long 3.89; wide 3.02. **Leg measurements:** I: Fe 3.34/ Pa 1.33/ Ti 2/ Me 2.32/ Ta 1.71/ total 10.7. II: 3.16/ 1.33 / 1.94/ 2.51/ 1.69/ 10.63. III: 2.57/ 1.39/ 1.49/ 2.55/ 1.72/ 9.72. IV: 3.54/ 1.52/ 2.81/ 2.89/ 1.88/ 12.64. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-4, d0, p0, r0; Me v4-5-4, d0, p0-1-0, r1-3-4; Ta v0-3-5, d0, p1-2-2, r2-3-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-3-4, d0, p0, r1-6-14; Me v3-3-4, d0, p1-1-2, r1-3-5; Ta v0-1-1, d0, p2-1-2, r1-3-7. III – Fe v0, d0, p0, r0; Pa v0-0-1, dx, p1-0-4, r0-0-1; Ti v0-0-2, dx, p0-0-3, r0-0-4; Me v0-2-4, dx, p1-0-2, r0-1-5; Ta v0, dx, p0-1-4, r0-0-3; IV – Fe v0, dx, p0, r0; Pa v0, d5-6-27, p3-2-1, r0; Ti v3-2-4, d1-0-12, p0-1-0, r0; Me v3-3-2, d0-1-0, p0-2-4, r0-0-1; Ta v0, d0, p1-2-5, r0-2-3. **Palp:** BTA developed, placed medially on prolateral tegular surface, embolus with three keels (PAc, PS and PI) notable on prolateral and dorsal views. PS more developed than PI; PAc evident on prolateral and

dorsal views. Serrated area in a row, continuous to PAc, toward the base of embolus. Tegulum developed, PA pronounced, continuous to PAc (Fig. 118 A–C).

VARIATION.

MALES (n=3): **Eyes: Diameters:** PME 0.1–0.18, PLE 0.13–0.21, ALE 0.2–0.24, AME 0.12–0.15; **MOQ:** Length 0.59–0.68, front width 0.47–0.56, back width 1.02–1.37; **Interdistances:** PME–PME 0.77–1.26, PLE–PLE 0.06–0.12, AME–AME 0.2–0.26, ALE–ALE 0.36–0.52, ALE–PLE 0.32–0.38, AME–PME 0.28–0.4. **Ocular area:** OAL 2.36–3.02, OAW 1.78–3.02 and IF 1.14–1.32. **Body:** Total length: 7.19–8.23; Carapace: Length 2.88–4.13; wide 2.95–4.23; Clypeus: 0.07–0.13; Fovea: 0.98–1.43; Labium: Length 0.85–0.98; wide 0.59–0.74; Chelicera: Length 1.85–2.31; wide 0.88–1.08; Sternum: Length 2.3–2.98; wide 1.79–2.45; Abdomen: Length 3.72–3.98; wide 2.74–3.06. **Legs:** I: Fe 3.34–4.45/ Pa 1.25–1.73/ Ti 2–3.06/ Me 2.32–3.37/ Ta 1.71–2.21/ total 10.7–14.34. II: 3.16–4.39/ 1.33–1.76/ 1.94–2.75/ 2.51–3.41/ 1.69–2.23/ 10.63–13.93. III: 2.57–3.49/ 1.39–1.87/ 1.49–2.22/ 2.55–3.9/ 1.72–2.27/ 9.72–13.52. IV: 3.54–4.51/ 1.52–2.07/ 2.81–3.76/ 2.89–3.83/ 1.88–2.42/ 12.64–16.5. Tibia, metatarsi and tarsi may or may not be pale than the rest of leg articles. Rastellum without spines in some specimens.

Distribution. BRAZIL. Minas Gerais: Jaboticatubas; São Paulo: Itirapina (Map 6).

Examined material. BRAZIL: *Minas Gerais:* Jaboticatubas, Santana do Riacho, Morro do Pilar e Itambé do Mato Dentro, Parque Nacional da Serra do Cipó, 19°15'S 43°31'O, 1♂, 07–14.i.2002, Equipe Biota leg. (IBSP 113194); *São Paulo:* Itirapina, Estação Ecológica de Itirapina, 22°15'S 47°49'O, 1♂, C. Bertim leg. (IBSP 114452); 14–21.v.2001, C. Bertim *et al.* leg. (IBSP 114460).

Actinopus emas new species

Figs 119–121, Map 6

Type material. Holotype. Male from 18° 10' 00.00" S 52° 45' 00.00" W, Parque Nacional das Emas, Mineiros, Goiás, Brazil, ii.1999, F. Rodrigues leg. (IBSP 108072).

Paratype: BRAZIL. Goiás: Mineiros, Parque Nacional da Emas, 18° 10' 00.00" S 52° 45' 00.00" W, 1♂, ii.1999, F. Rodrigues leg. (IBSP 108072).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. emas* resemble those of *A. paranensis*, *A. pusillus* and *A. bocaina* the PA continuous to PAc. Resemble all species of the group *crassipes*, except *A. laventana* and *A. paranensis*, by BTA placed medially on prolateral tegular surface. Resemble all species of the group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc, continuous to proximal area of PAc. Resemble *A. dubiomaculatus* and *A. paranensis* by serrated area parallel PAc extension (Fig. 121 A–C). Resemble *A. crassipes* by metatarsi and tarsi paler than other articles. Differ from all other species of the group by PS not visible on dorsal view (Fig. 121 B); two blue-purplewish dorsal *scuta* on abdomen, anterior *scutum* thinner than posterior *scutum* (Fig. 119 A).

MALE (IBSP 108072): Total length 8; Carapace, long 3.875; wide 3.75. Carapace anterior part tapering and posterior part triangular. Anterior eye row slightly procurved, posterior row recurve (Fig. 119 B). With few short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 119 C). Rastellum protuberant, inverted, digitiform, V-shaped, hirsute, with thornas on border of apice (Fig. 119 E–F). Chelicera with two denticles along the prolateral row of teeth. Prolateral row of teeth with nine megateeth. Retrolateral row of teeth with five megateeth (Fig. 119 D). Patella and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 120 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 120 A, C). Tibia IV without spines on dorsal surface (Fig. 120 D). Ventral scopulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Scopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact, with 10% of the length of metatarsus I and II filled by scopula. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale bluewish-brown (Fig. 119 A). **Eyes: Diameters:** PME 0.2, PLE 0.2, ALE 0.24, AME 0.12; MOQ: Length 0.64, front width 1.64, back width 1.52; **Interdistances:** PME–PME 0.84, PLE–PME 0.04, AME–AME 0.16, ALE–AME 0.4, ALE–PLE 0.24, AME–PME 0.8. **Ocular area:** OAL 2.625, OAW 2.25, and IF 1.125. **Body:** Clypeus: 0.125; Fovea: 1.625; Labium: long 0.75; wide 0.625; Chelicera: long 1.625; wide 1.75; Sternum: long 2.375, 3.75; wide 1.75; Abdomen: long 3.625 8.5;

wide 2.875. **Leg measurements:** I: Fe 4/ Pa 1.625/ Ti 2.5/ Me 3.375/ Ta 2.125 2.625/ total 13.625. II: 7/ 3.125/ 5.625/ 6.25/ 3.125/ 25.125. III: 4/ 1.625/ 2.75/ 3.5/ 2.125/ 14. IV: 3.375/ 1.5/ 2.125/ 3.75/ 2.125; 12.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v4-6-5, d0, p0-0-1, r0-0-2; Me v3-7-3, d0, p1-2-2, r0-0-1; Ta v0-3-4, d0, p0-1-2, r0-2-4. II – Fe v0, d0, p0, r0; Pa v0-0-2, d0, p0, r0; Ti v0-4-3, d0, p0, r0-5-4; Me v3-7-7, d0, p1-2-1, r0-2-3; Ta v1-2-6, d0, p1-2-1, r1-1-1. III – Fe v0, d0, p0, r0; Pa v0, d4-6-27, p0-0-2, r0-0-2; Ti v0, d1-0-12, p1-1-2, r0-1-2; Me v1-3-3, d0-1-2, p1-0-2, r1-0-1; Ta v0, d0, p0-3-4, r0-4-6; IV – Fe v0, d0, p0, r0; Pa v0, d20-10-5, p0, r0; Ti v0-0-1, d0, p0, r0; Me v0-0-1, d0, p0-0-1, r0-0-1; Ta v0, d0, p0-1-5, r0. **Palp:** BTA developed, placed medially on prolateral tegular surface, embolus with three keels (PAc, PS and PI) notable on prolateral, dorsal and retrolateral views. PS less developed than PI, PAc evident on prolateral, dorsal and retrolateral views. Serrated area represented by a row, continuous to PAc. Tegulum thin and elongated, PA pronounced, continuous to PAc; tegulum with a small lateral swelling above PA (Fig. 121 A–C).

Distribution. BRAZIL. Goiás: Mineiros (Map 6).

Actinopus bocaina new species

Figs 122–124, Map 6

Type material. Holotype. Male from [18° 9' 15" S 43° 20' 50" W], Parque Estadual do Rio Preto (PERP), São Gonçalo do Rio Preto, Minas Gerais, Brazil, D. Moura leg. (CAD 326). **Paratypes:** BRAZIL. Minas Gerais: São Gonçalo do Rio Preto, Parque Estadual do Rio Preto (PERP), [18° 9' 15" S 43° 20' 50" W], 1♂, x.2010, D. Moura leg. (CAD 421); 20–25.X.2010, G. Monteiro, F. Sá, W. F. Silva & J. P. L. Guadanucci leg. (CAD 244); Antônio Dias, [19° 50' S 43° 19' W], Usina Hidroelétrica Guilman-Amorim, 6♂, 27.vi.2009, R. Quadros leg. (UFMG 1606, 1♂ removed for SEM); Belo Horizonte, Parque Municipal das Mangabeiras, 19° 56' 38.98" S 43° 54' 1.07" W, 1♂, 20–22.i.2009, H. H. Santos *et al.* leg. (UFMG 8113); Santa Bárbara, Fazenda Bocaina, 19° 58' S 42° 9' W, 2♂, 1.i.2010, M. F. Vasconcelos leg. (UFMG 11730); Serra do Baú, 19° 58' 3.49" S 43° 25' 43.93" W, 2♂, 25.x–4.xi.2008, B. V. S. Pimenta & M. W. E. Faria leg. (UFMG 8420); Povoado de Paiol, 20° 02' 23" S 43° 34' 29" W, 1♂, 24–30.x.2008, B. V. S. Pimenta & M. W. E. Faria leg. (UFMG 5389).

Etymology. The specific name is a toponimic after Fazenda Bocaina, one of the localities in which paratypes were collected.

Diagnosis. Males of *A. bocaina* resemble those of *A. paranensis*, *A. pusillus* and *A. emas* by PA continuous to PAc. Resemble all species of the group *crassipes*, except *A. laventana* and *A. paranensis*, by BTA placed medially on prolateral tegular surface. Resemble all species of group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc, continuous to proximal area of PAc. Resemble *A. crassipes* and *A. emas* by the lateral swelling above PA (Fig. 124 A–C). Resemble *A. paranensis*, *A. pusillus* and *A. laventana* by the palpal tibia paler than other articles. Resemble *A. laventana* by the presence of smooth roughness on basal labium and maxillae (Fig. 122 C). Differ from all other species of the group by the quadrate cusps below PAc and along embolus on all views; tegular surface with several cusps immediately above embolar base on retrolateral view (Fig. 124 A–C).

MALE (CAD 326): Total length 13.875; Carapace, long 5.5; wide 4.375. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 122 B). With one short bristles between AME–clypeus. With one bristles between ALE–ALP and few weak and short bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 122 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 122 E–F). Smooth roughness on basal labium and maxillae (Fig. 122 C). Chelicera with 15 denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth and one basal teeth. Retrolateral row of teeth with six megateeth and one denticle between the second distal and third distal megateeth and to denticles between three basala (Fig. 122 D). Patella and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 123 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 123 A, C). Tibia IV without spines on dorsal surface (Fig. 123 D). Ventral pseudoscopulae occupying 40% of the length of tarsus I, 60% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp yellow; Abdomen pale brown (Fig. 122 A). **Eyes: Diameters:** PME 0.2, PLE 0.28, ALE 0.36, AME 0.32; **MOQ:** Length 1.16, front width 2.4, back width 2;

Interdistances: PME–PME 1.32, PLE–PME 0.08, AME–AME 0.16, ALE–AME 0.52, ALE–PLE 0.4, AME–PME 0.4. **Ocular area:** OAL 5.25, OAW 3.125, and IF 2.125. **Body:** Clypeus: 0.125; Fovea: 1.5; Labium: long 1.25; wide 1; Chelicera: long 2.625; wide 1.5; Sternum: long 3.75; wide 3; Abdomen: long 6.25; wide 4.375. **Leg measurements:** I: Fe 6.125/ Pa 2.5/ Ti 3.375/ Me 4.75/ Ta 2.625/ total 19.375. II: 4.75/ 2.5/ 3.375/ 4.25/ 2.5/ 17.375. III: 4.125/ 2.375/ 2.5/ 4.5/ 2.75/ 16.25. IV: 5.75/ 2.5/ 4.75/ 5/ 3/ 21. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v1-0-1, d0, p0-0-2, r0; Ta v0, d0, p0-1-2, r0-3-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0-0-3; Me v0, d0, p0-3-3, r1-3-5; Ta v1-2-3, d0, p3-4-6, r1-3-6. III – Fe v0, d0, p0, r0; Pa v0, d6-8-30, p1-0-2, r0-0-5; Ti v0, d1-0-18, p0-0-1, r0-0-4; Me v0-0-3, d1-0-0, p0-0-2, r0-0-2; Ta v0-0-2, d0, p0-4-6, r0-3-7; IV – Fe v0, d0, p0, r0; Pa v0, d17-13-8, p0-0-1, r0; Ti v2-2-4, d0, p0, r0; Me v2-4-3, d0, p0-2-3, r0-0-1; Ta v0-0-4, d0, p2-5-10, r0-3-7. **Palp:** BTA developed, placed medially on prolateral tegular surface, embolus with three keels (PAC, PS and PI) notable on prolateral and dorsal views. PS less developed than PI, PAC evident on prolateral and dorsal views. Tegulum thin, elongated, PA pronounced and continuous to PAC, lateral swelling above PA present (Fig. 124 A–C).

Distribution. BRAZIL. Minas Gerais: São Gonçalo do Rio Preto, Antônio Dias, Belo Horizonte, Santa Bárbara (Map 6).

Actinopus laventana new species

Figs 125–129, Map 6

Type material. Holotype. Male from [38° 08' 21.58" S 61° 47' 38.90" W], Sierra de La Ventana, Buenos Aires, Argentina, N. Ferreti (LZI M135). **Paratypes:** URUGUAY. Rocha: La Coronilla, 34° S 53° 51' W, 1♂, 12.iv.1986, L. A. de Gambardella leg. (FCE-MY 542). Tacuarembó: [31° 44' S 55° 59' W], Ruta 31, Km 146, 1♀, 16.ii.2011, L. M. de Oca, F. Costa & F. Pérez-Miles leg. (FCE-MY 977); ARGENTINA. Buenos Aires: Sierra de La Ventana, 38° 08' 21.58" S 61° 47' 38.90" W, 1♀, 4.ix.2009, S. Copperi leg. (LZI M138).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *A. laventana* resemble those of *A. crassipes*, *A. dubiomaculatus* and *A. goloboffi* by PA continuous to PI. Resemble all species of group *crassipes*, except *A. crassipes*, by the serrated area distal to PAc, continuous to proximal area of PAc. Resemble *A. dubiomaculatus*, *A. paranensis*, *A. pusillus* and *A. calamuchita* by the absence of lateral swelling above PA (Fig. 129 A–C). Resemble *A. paranensis*, *A. pusillus* and *A. emas* by the palpal tibia paler than other articles. Resemble *A. bocaiana* by the maxillae and base of labium slightly rugose (Fig. 125 C). Differ from all species of the group *crassipes* by BTA displaced ventrally on prolateral tegular surface; PA well developed and ventrally displaced from the lateral border of tegulum on prolateral view (Fig. 129 A–C); Females of *A. laventana* differ from those of *A. dubiomaculatus* and *A. goloboffi* by receptacles with lateral swelling (Fig. 129 D); dorsal abdominal *scutum* absent (Fig. 125 A).

MALE (LZI M135): Total length 10.25; Carapace, long 5; wide 4.75. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 125 B). Without bristles between AME–clypeus. With one bristles between ALE–ALP and few short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with ten sigillae fused in the middle, two distal sigillae more fused than others and to basal less fused. With smooth corrugated area on basal labium and maxillae (Fig. 125 C). Rastellum protuberant, inverted V-shaped, hirsute, with a row of spines on apice (Fig. 125 E–F). Chelicera with twenty denticles widespread on subungual sulc. Prolateral row of teeth with seven megateeth. Retrolateral row of teeth with six megateeth and one tooth in the middle of megateeth row (Fig. 125 D). Patella III and tibia III with distal crown of well-developed thorns, interrupted in the middle (Fig. 126 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 126 A, C). Tibia IV without spines on dorsal surface (Fig. 126 D). Ventral pseudoscopulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale brown with many small spots of pigmentation on dorsal surface (Fig. 125 A). **Eyes:** **Diameters:** PME 0.2, PLE 0.24, ALE 0.4, AME 0.28; MOQ: Length 0.84, front width 2.52, back width 2.2; **Interdistances:** PME–PME 1.32, PLE–PME 0.08, AME–AME 0.2, ALE–AME 0.72, ALE–PLE 0.4, AME–PME 0.48. **Ocular area:** OAL 3.375, OAW 2.875, and IF 1.5. **Body:** Clypeus: 0.125; Fovea:

1.375; Labium: long 1.125; wide 0.875; Chelicera: long 1.875; wide 1.375; Sternum: long 3.125; wide 2.875; Abdomen: long 4.75; wide 3.75. **Leg measurements:** I: Fe 4.5/ Pa 2.125/ Ti 3.125/ Me 3.75/ Ta 2.25/ total 15.75. II: 4.75/ 1.875/ 2.375/ 3.75/ 2.25/ 15. III: 3.5/ 2.125/ 1.875/ 3.75/ 2.25/ 13.5. IV: 4.125/ 1.375/ 3/ 4.25/ 2.5/ 15.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-7-5, d0, p0-1-3, r0-0-2; Me v4-4-2, d0, p1-1-2, r3-4-4; Ta v0-2-2, d0, p1-2-2, r3-5-5. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-4-8, d0, p0, r0-1-5; Me v6-7-7, d0, p1-2-3, r1-4-4; Ta v1-2-3, d0, p2-1-3, r2-6-7. III – Fe v0, d0, p0, r0; Pa v0, d7-13-34, p0, r0-0-3; Ti v0-0-4, d1-0-11, p0-0-2, r0-0-5; Me v0-5-6, d1-1-2, p2-2-2, r2-2-5; Ta v0-1-1, d0, p1-1-2, r0-0-2; IV – Fe v0, d0, p0, r0; Pa v0, d14-19-12, p0, r0; Ti v0-0-2, d0, p1-4-7, r0; Me v0-0-3, d0, p0-4-8, r0-0-1; Ta v0, d0, p1-1-1, r1-3-2. **Palp:** BTA developed, displaced ventrally in relation to a middle longitudinal line along prolateral tegular surface, embolus with three keels (PAC, PS and PI) notable on prolateral and dorsal views. PS more developed than PI, PAC evident on prolateral, dorsal and retrolateral views. Serrated area in a row along PAC and embolus on all views; Tegulum thin, elongated, PA well developed and ventrally displaced from the lateral border of tegulum on prolateral view (Fig. 129 A–C).

FEMALE (FCE-MY 977): Total length 17.125; Carapace, long 6.625; wide 6.625. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 127 B). Many long bristles between AME–clypeus, between PLE–ALE, between posterior eyes–fovea and between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 127 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 127 E–F). Chelicera with 16 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and three teeth, two basal to megateeth and one between two distal megateeth. Retrolateral row of teeth with six megateeth and three teeth between three basal megateeth (Fig. 127 D). Patella III and tibiae III with distal developed crown of thorns (Fig. 128 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 128 C). Tibia IV without spines and with long bristles along the prolaterodorsal surface (Fig. 128 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp yellowish brown; Abdomen pale brown with a small spots of

depigmented area widespread on dorsal view (Fig. 127 A). 13 labial cuspules, 65 in right maxilla and 59 in left. **Eyes: Diameters:** PME 0.28, PLE 0.4, ALE 0.44, AME 0.16; MOQ: Length 1.2, front width 4.08, back width 3.48; **Interdistances:** PME–PME 2.16, PLE–PME 0.32, AME–AME 0.24, ALE–AME 1.4, ALE–PLE 0.64, AME–PME 1. **Ocular area:** OAL 6, OAW 3.875, and IF 2.875. **Body:** Clypeus: 0.5; Fovea: 3.25; Labium: long 1.5; wide 1.5; Chelicera: long 4.125; wide 2.75; Sternum: long 4.375; wide 4.125; Abdomen: long 9.875; wide 7.25. **Leg measurements:** I: Fe 3.5/ Pa 2.375/ Ti 1.875/ Me 1.75/ Ta 0.75/ total 10.25. II: -. III: 3.625/3/1.25/2.5/1/11.375. IV: 4.625/3.125/2.5/3/1.125/14.375. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p1-1-4, r3-4-2; Me v0-0-2, d0, p4-5-8, r10-9-5; Ta v0-0-4, d0, p4-3-2, r4-6-8. II – Without both leg II. III – Fe v0, d0, p0, r0; Pa v0, d0-0-34, p0-0-2, r0-0-19; Ti v0, d1-0-16, p0-0-1, r2-7-13; Me v0-0-5, d29-15-12, p0, r1-3-7; Ta v17-9-9, d0-0-4, p3-0-2, r3-6-9; IV – Fe v0, d0, p0, r0; Pa v0, d20-15-10, p0, r0; Ti v0, d0, p0, r0; Me v0, d0-0-1, p0-2-1, r0; Ta v7-6-8, d0, p4-6-7, r0-0-3. **Spermatechae:** Represented by two bilobed seminal receptacles, each one longer than wide, with short duct. External lobes longer than internal lobes. Pore distribution reaching the base, 75% of apical area with a dense distribution of pores and the basal portion with widespread pores. Lateral swelling present on outer surface of each receptacle (Fig. 129 D).

Distribution. URUGUAY. Rocha: La Coronilla; Tacuarembó. ARGENTINA. Buenos Aires: Sierra de La Ventana (Map 6).

Actinopus calamuchita new species

Figs 130–132, Map 6

Type material. Holotype. Male from [32° 16' 17.10" S 64° 37' 17" W], "El Sauce", Calamuchita, Córdoba, Argentina, xii.1938, M. J. Viana leg. (MACN-Ar 19822). Paratypes: URUGUAY: *Artigas*: Tres Cruces, Arroyo, 30° 27' S 56° 48' W, 1♂, 16.ii.1955 (FCE-MY 53); 18.ii.1955 (FCE-MY 57); Adolfo Alsina, Valle Del Platon, [31° 00' 00.00" S 55° 41' 00.00" W], 1♂, 20-26.ii.1966, F. Achaval leg. (MACN-Ar 19825); *Paysandú*: Santa Rita [32° 16' 14.44" S 58° 04' 52.08" W], 1♂, i. 1948 (MACN-Ar 19837). ARGENTINA: *Provincia Catamarca*: Singuil, El Chorro, [27° 45' 48.28" S 65° 49' 54.43" W], 1♂, Partridge & Núñez leg. (MACN-Ar 19829, 1♂ removed for SEM). *Provincia Corrientes*: Manantiales, [27° 55' 26.79" S 58° 06' 12.07" W], 1♂, iv.1945, Apóstol leg. (MACN-Ar 19839); Alcorta, Santiago, [28° 46' 59.20" S 58° 41'

42.97" W], 1♂, Berger leg. (MACN-Ar 19828). *Provincia de Córdoba*: Valle Hermoso, [31° 06' 57.71" S 64° 28' 54.99" W], 1♂, iii. 1943, J. M. Viana leg. (MACN-Ar 1255); ii.1960, O. deFerrariis leg. (AMNH); Córdoba, Barrio Argüello, [31° 21' 00.00" S 64° 15' 00.00" W], 2♂, ii.1943, J. A. De Carlo leg. (MACN-Ar 1945); 1♂4J, xii.1941, M. J. Viana leg. (MACN-Ar 19832). *Provincia de Santa Fé*: Rosário, [32° 57' 02.67" S 60° 39' 59.40" W], 1♂, Williner (MACN-Ar 19833); *Provincia de Buenos Aires*: Escobar, [34° 20'24.91" S 58° 47' 05.79" W], 1♂, ix.1980 (MACN-Ar 19840).

Etymology. The specific name refers to the type locality, Department of Calamuchita, Argentina.

Diagnosis. Males of *Actinopus calamuchita* share with *A. goloboffi* and differs from all other species of the genus by the discontinuous thoracic fovea, interrupted in the middle (Fig. 130 B) and a projection in anterior angle of coxae (Fig. 130 C). They differ from *A. goloboffi* by sternum without a deep central depression (Fig. 130 C) and from all other species included on the group *crassipes* by the PA continuous to the middle between PI and PAc (Fig. 132 A–B) and the presence of a cusp on embolar base and a tegular cusp below embolar base, as seen on dorsal view (Fig. 132 B); the U-shaped carapace (Fig. 130 B) is also diagnostic.

MALE (Paratype, MACN-Ar 19837): Total length 9.125; Carapace, long 3.875; wide 3.625. Carapace anterior part tapering, and posterior part in U form. Anterior eye row slightly procurved, posterior row recurve (Fig. 130 B). With seven short bristles and one long bristle between AME–clypeus. One long bristle between ALE–ALP and many short and weak bristles between PE–fovea. Sternum with eight smooth sigillae fused in the middle (Fig. 130 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 130 E–F). Chelicera with four denticles along the prolateral row of teeth. Prolateral row of teeth with two megateeth and four denticles in basal part of this row. Retrolateral row of teeth with five megateeth and one denticle between two basal megateeth (Fig. 130 D). Patella III and tibia III with distal crown of well-developed thorns, interrupted in the middle and very weak in the middle of tibia III (Fig. 131 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 131 A, C). Patela IV without spines on dorsal surface (Fig. 131 D). Ventral pseudoscapulae occupying 20% of the length of tarsi I, 30% of II and 100% of III and IV. Pseudoscapula of tarsi I and II

with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicerae redish brown; Sternum, coxae, trochantera, femora, patella, tibia, metatarsi and tarsi yellowish brown; Patella, tibia of palp and cymbium pale yellow than others articles and abdomen gray (Fig. 130 A). **Eyes:** **Diameters:** PME 0.15, PLE 0.175, ALE 0.25, AME 0.125; MOQ: Length 0.7, front width 1.9, back width 1.85; **Interdistances:** PME-PME 1.2, PLE-PME 0.125, AME-AME 0.2, ALE-AME 0.575, ALE-PLE 0.35, AME-PME 0.45. **Ocular area:** OAL 2.875, OAW 2.5, and IF 1.25. **Body:** Clypeus: 0.25; Fovea: 1.87; Labium: long 0.87; wide 0.75; Chelicera: long 2.125; wide 1.125; Sternum: long 2.125; wide 2.125; Abdomen: long 5; wide 3.75. **Leg measurements:** I: Fe 4/ Pa 1.62/ Ti 2.125/ Me 2.875/ Ta 1.375/ total 12. II: 3.75/ 1.625/ 2.125/ 2.375/ 1.875/ 11.75. III: 2.875/ 1.625/ 1.625/ 3.125/ 2.125/ 11.375. IV: 3.875/ 1.875/ 3.125/ 3.375/ 2.25/ 14.5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-3, d0, p0, r0; Me v2-2-5, d0, p1-1-2, r0-0-3; Ta v3-5-9, d0, p1-2-2, r0-0-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-1-3, d0, p0, r0-0-4; Me v4-4-5, d0, p0-1-1, r0-1-5; Ta v1-5-7, d0, p1-3-2, r3-3-8. III – Fe v0, d0, p0, r0; Pa v0, d5-10-23, p0-0-2, r1-0-4; Ti v0-0-3, d0-0-2, p0-0-2, r0-0-3; Me v2-3-4, d0, p0-1-3, r0-1-4; Ta v0, d0, p2-3-3, r1-3-1; IV – Fe v0, d0, p0, r0; Pa v0-0-1, d13-10-5, p5-5-1, r0; Ti v1-3-6, d0, p0-0-2, r0; Me v3-1-5, d0, p0-1-3, r0-0-2; Ta v0-0-3, d0, p4-6-10, r0-4-5. **Palp:** BTA developed, placed medially on prolateral tegular surface; Embolus with three developed keels (PAC, PI and PS). PA well developed, continuous to a point between PI and PAC. Basal surface of tegulum with a big serrated area; prolateral surface and retrolateral surface (in dorsal view) of embolus with one denticle next the base of embolus; embolar bases thin (Fig. 132 A–C). Patella, tibia and cymbium of palp paler than other articles.

Distribution: URUGUAY. Artigas: Tres Cruces; Adolfo Alsina; Paysandú: Santa Rita; ARGENTINA. Catamarca: Singuil; Corrientes: Manantiales, Santiago Alcorta; Córdoba: Valle Hermoso, Córdoba, San Agustín; Santa Fé: Rosário; Buenos Aires: Escobar (Map 6).

***Actinopus goloboffi* Ríos, 2014**

Actinopus goloboffi Ríos, 2014: 73, f. 1–12 (holotype ♂ and paratype ♀, Andalgalá (camino a Belén), 3km SW, Catamarca, MACN-Ar 31441); World Spider Catalog, 2018.

Diagnosis. Males of *Actinopus goloboffi* share with *A. calamuchita* the discontinuous thoracic fovea, interrupted in the middle and a projection in anterior angle of coxae, a feature that is exclusive in the genus. They differ from *A. calamuchita* by the sternum with a deep central depression and resemble *A. crassipes*, *A. dubiomaculatus* and *A. laventana* by the PA continuous to PI. Females of *A. goloboffi* share with *A. dubiomaculatus* and *A. laventana* the similar shape of receptacles. They differ from *A. laventana* by the absence of lateral swelling on receptacles and from all other species of the genus by the discontinuous thoracic fovea, interrupted in the middle.

Description. See Ríos (2014).

Distribution. ARGENTINA: Catamarca.

Group osbournei

Diagnosis. The species included in the group osbournei are recognized by the small total length; Legs with metatarsi and tarsi paler than other articles; abdomen without *scutum*; sigillae converging to the middle of sternum but separated; Embolus with three keels; tegulum thin and elongated; BTA developed and placed medially on prolateral tegular surface; PA continuous to PAc.

Species included. *Actinopus osbournei* n. sp.; and *Actinopus dioi* n. sp.

***Actinopus osbournei* new species**

Figs 133–135, Map 7

Type material. Holotype. Male from [29° 47' 15.98" S 57° 03' 43.35" W], Imbaá, Uruguaiana, Rio Grande do Sul, Brazil, ii.2010, R. Alves leg. (MCTP 8859).

Paratypes: BRAZIL. Rio Grande do Sul: Uruguaiana, Imbaá, [29° 47' 15.98" S 57° 03' 43.35" W], 1♂, i. 2009, R. Alves (MCTP 8848, 8849, 8855, 8856, 8858, 8875); 24.iv.2009, R. Alves leg. (MCTP 8848); ii.2010, R. Alves leg. (MCTP 8861, 8862); 2♂, i. 2009, R. Alves (MCTP 8851, 8852, 8853); ii.2010, R. Alves leg. (MCTP 8860, 8863, 8864); 3♂, i. 2009, R. Alves (MCTP 8854); 4♂, i. 2009, R. Alves (MCTP 8850, 2♂ removed for SEM).

Etymology. The specific name is in honor of musician John Michael Osbourne or Ozzy Osbourne, the founder of heavy metal, affiliated to a band called Black Sabbath, in addition to his solo career.

Diagnosis. Males of *A. osbournei* differs from those of *A. dioi* by PA developed; tegulum shorter; cusps of serrated area present below PAc; and thinner embolus (Fig. 135 A–C).

MALE (MCTP 8859): Total length 6.83; Carapace, long 3.5; wide 3.25. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 133 B). With few weak short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae converging to the middle, but separated, two basal sigillae bigger and more fused than others (Fig. 133 C). Rastellum protuberant, digitiform, hirsute, with spines on apice (Fig. 133 E–F). Chelicera with nine denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one basal tooth. Retrolateral row of teeth with five megateeth and three denticles, two between the three basal and two basal megateeth and one between the two basal megateeth (Fig. 133 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 134 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 134 A, C). Tibia IV without spines on dorsal surface (Fig. 134 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 80% of II and 90% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae and tibiae yellowish brown; Metatarsi and tarsi yellowish brown, paler than other articles; Abdomen gray with small spots of depigmentation on dorsal surface (Fig. 133 A). **Eyes: Diameters:** PME 0.156, PLE 0.156, ALE 0.281, AME 0.125; **MOQ:** Length 0.593, front width 1.625, back width 0.5; **Interdistances:** PME–PME 0.843, PLE–PME 0.093, AME–AME 0.156, ALE–AME 0.437, ALE–PLE 0.281, AME–PME 0.281. **Ocular area:** OAL 2.2, OAW 2, and IF 1.6. **Body:** Clypeus: 0.166; Fovea: 1.333; Labium: long 0.75; wide 0.666; Chelicera: long 1.25; wide 0.833; Sternum: long 2.333; wide 2; Abdomen: long 3.333; wide 2.583. **Leg measurements:** I: Fe 3.583/ Pa 1.5/ Ti 2.083/ Me 2.583/ Ta 1.75/ total 11.5. II: 3.166/ 1.416/ 1.916/ 2.583/ 1.666/ 10.75. III: 2.583/ 1.5/ 1.5/ 2.583/ 1.833/ 10. IV: 3.5/ 1.666/ 2.75/ 2.5/ 2/ 12.416. **Formula** 4123. **Spinulation:** I – Fe v0, d0, p0, r0;

Pa v0, d0, p0, r0; Ti v2-2-7, d0, p0, r0-0-2; Me v4-7-8, d0, p0-3-2, r0; Ta v1-2-3, d0, p1-1-3, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-4-5, d0, p0, r0; Me v5-7-9, d0, p0, r0; Ta v3-3-7, d0, p0-1-0, r0. III – Fe v0, d0, p0, r0; Pa v0, d4-8-19, p0-0-1, r0-0-1; Ti v0, d1-0-12, p0-0-2, r0-1-3; Me v1-1-3, d0, p0-1-1, r0-1-3; Ta v0, d0, p0, r0; IV – Fe v0, d0, p0, r0; Pa v0, d14-7-5, p0-0-1, r0; Ti v0-0-2, d0, p0, r0-0-1; Me v2-1-3, d0, p0-1-1, r0-0-1; Ta v0, d0, p0, r0. **Palp:** PA developed, embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; Serrated area developed represented by many cusps below PAc on prolateral view; Thin and elongated tegulum and thin embolar base. PS length on dorsal view reaching the embolar edge (Fig. 135 A–C).

Distribution. BRAZIL. Rio Grande do Sul: Uruguaiana (Map 7).

Actinopus dioi new species

Figs 136–138, Map 7

Type material. Holotype. Male from [06° 23'36" S 48° 33' 41" W], Serra das Andorinhas, São Geraldo do Araguaia, Pará, Brazil, 27.X–07.xi.2011, T. C. S. Ávila-Pires, M. S. Hoogmoed & A. C. M. Dourado leg. (MPEG, 1♂ removed for SEM).

Paratypes: BRAZIL. Piauí: José de Freitas, Fazenda Nazareth, Plot 1, 04° 47' 06.2" S 042° 38' 16.3" W, 1♂, 31.i.2004, V. O. Costa leg. (MPEG 2243, 2244); União, [04° 35' S 42° 51' W], Área da Empresa COMVAPI LTDA, 1♂ (MPEG). Tocantins: Ipueira, 11° 45' S 48° 26' W, 1♂, 28.x–04.xi.2001, I. Knyzak & R. Martins leg. (IBSP 111677, 111678, 111679, 111680, 111681).

Etymology. The specific name is in honor of musician Ronald James Padavona or Ronnie James Dio, one of Black Sabbath vocals, affiliated to several bands of heavy metal in addition to his solo career.

Diagnosis. Males of *A. dioi* differ from those of *A. osbournei* by the palpal tibia paler than other articles; PA inconspicuous; tegulum longer; cusps of serrated area present along the length of embolus; embolus flatenned (Fig. 138 A–C).

MALE (MPEG): Total length 9.5; Carapace, long 4.58; wide 4.66. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 136 B).

With one long bristle and many short/weak bristles forming a row on the border of clypeus. With few, short and weak bristles between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae converging to the middle, but separated, two basal sigillae bigger and more fused than others (Fig. 136 C). Rastellum protuberant, digitiform, hirsute, without spines in apice (Fig. 136 E–F). Chelicera with 12 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and two teeth on basal portion. Retrolateral row of teeth with seven megateeth (Fig. 136 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 137 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 137 A, C). Tibia IV without spines on dorsal surface and two rows of filiform trichobothria on dorsal surface (Fig. 137 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae and tibiae dark brown; Metatarsi and tarsi dark brown, paler than other articles; Abdomen gray (Fig. 136 A).

Eyes: Diameters: PME 0.25, PLE 0.343, ALE 0.406, AME 0.312; **MOQ:** Length 0.875, front width 2.625, back width 2.312; **Interdistances:** PME–PME 1.406, PLE–PME 0.093, AME–AME 0.156, ALE–AME 0.687, ALE–PLE 0.375, AME–PME 0.406.

Ocular area: OAL 3.666, OAW 2.666, and IF 2.416. **Body:** Clypeus: 0.166; Fovea: 2; Labium: long 1.083; wide 1; Chelicera: long 2.916; wide 1.583; Sternum: long 3.333; wide 2.666; Abdomen: long 4.666; wide 3.666. **Leg measurements:** I: Fe 5/ Pa 2.25/ Ti 3.333/ Me 4.166/ Ta 2.416/ total 17.166. II: 4.833/ 2.083/ 3.25/ 4.25/ 2.416/ 16.833. III: 3.333/ 2.25/ 2.083/ 4.166/ 2.333/ 14.166. IV: 5.166/ 2.25/ 4.333/ 4.666/ 2.583/ 19.

Formula 4123. Spinulation: I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-2-5, d0, p0-0-2, r0-0-1; Me v5-5-5, d0, p3-5-5, r4-5-5; Ta v1-1-2, d0, p1-3-2, r2-3-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-6-8, d0, p0-0-1, r0-0-4; Me v3-6-6, d0, p1-4-5, r0-2-3; Ta v1-1-6, d0, p3-3-2, r0-1-3. III – Fe v0, d0, p0, r0; Pa v0, d7-12-21, p0-0-1, r0-0-2; Ti v0-0-3, d0-1-16, p0-0-2, r0-1-5; Me v3-3-3, d0-1-3, p4-4-3, r3-3-6; Ta v0-0-4, d0, p1-2-3, r1-3-2; IV – Fe v0, d0, p0, r0; Pa v0, d17-9-2, p0, r0; Ti v0, d0, p0, r0-0-1; Me v0-0-2, d0-0-1, p0-0-1, r0-0-1; Ta v0-3-1, d0, p0-0-4, r1-1-1. **Palp:** PA developed, embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; Serrated area developed, represented by many cusps below PAc on

prolateral view; Thin and elongated tegulum, thin embolar base. PS reaching the embolar edge on dorsal view (Fig. 138 A–C).

Distribution. BRAZIL. Piauí: José de Freitas, União, Caracol; Tocantins: Ipueira; and Pará: São Geraldo do Araguaia (Map 7).

Examined material. BRAZIL. Piauí: União, [04° 35' S 42° 51' W], Área da Empresa COMVAPI LTDA, 2♂, 2006, J. Queiroz leg. (CHNUFPI 29); Caracol, Parque Nacional da Serra das Confusões, PPBio Semiárido, 09° 13' 16" S 43° 29' 21" W, 1♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 6, 25, 194).

Group *tutu*

Diagnosis. The species included in the group *tutu* are recognized by the small total length; embolus with three keels; Serrated area on prolateral surface of embolus small or, when large, represented by sparse small denticles; patterns of coloration on legs and palp, when present, inconspicuous.

Species included. *Actinopus tutu* n. sp.; *Actinopus azaghal* n. sp.; *Actinopus itacolomi* n. sp.; *Actinopus longipalpis* C. L. Koch, 1842; and *Actinopus insignis* (Holmberg, 1881).

***Actinopus tutu* new species**

Figs 139–143, Map 8

Type material. Holotype. Male from [19° 37' 44.67" S 43° 58' 57.98" W], Lagoa Santa, Minas Gerais, Brazil, 02.x.2000, M. Rodrigues leg. (UFMG 585). **Paratypes:** BRAZIL. Minas Gerais: Itacarambi, Parque Nacional Cavernas do Peruaçu, 15° 9' 9" S 44° 14' 30" W, 1♂, 17–22.x.2010, G. F. B. P. Ferreira leg. (UFMG 9316); São Gonçalo do Rio Preto, Parque Estadual do Rio Preto (PERP), [18° 9' 15"S 43° 20' 50"W], 1♂, 20–25.x.2010, G. Monteiro, F. Sá, W. F. Silva & J. P. L. Guadanucci leg. (CAD 265); Diamantina, Bairro São Pedro, área de camping, 18° 14' 6.2" S 43° 36' 14.6" W, 1♂, 14–16.x.2012, U. Oliveira *et al.* leg. (UFMG 13835); Ibiá, 19° 28' 44" S 46° 32' 21" W, 8♂, 11.x.2011, P. H. Martins leg. (UFMG 11333); Santana do Riacho, Parque Nacional da Serra do Cipó, 19° 37' 0" S 43° 21' 0" W, 1♂, 19–20.ix.2009, B. T. Faleiro leg. (UFMG 3376); Confins, Aeroporto Internacional Tancredo Neves, 19° 37' 59" S 43° 58' 6" W, 1♂, 19.ix.2014, C. V. Nascimento (UFMG 15902); Lagoa Santa, Condomínio Vivendas, 19° 38' 39"S 43° 54' 36"W, 1♂, 14.ix.2013, I. L. F. Magalhães leg. (UFMG

18862); Santa Luzia, [19° 46' 01.93" S 43° 51' 08.56" W], 3♂, 09.x.2004 (UFMG 1729); Belo Horizonte, Bairro Braúnas, [19° 50' 44° 0' S 19° 50' S 44° 0' W], 1♂, 18.ix.2008, M. Loureiro leg. (UFMG 5813, removed for SEM); Parque Ecológico da Lagoa do Nado, [19° 50' 7" S 43° 57' 34" W], 1♂, 06.x.2004, M. De Maria *et al.* leg. (UFMG 1301); 19° 52' 0" S 43° 58' 0" W, Estação Ecológica da Universidade Federal de Minas Gerais (UFMG), 1♂, 28.viii.2000, E. S. S. Álvares leg. (UFMG 591); x.2000, E. S. S. Álvares leg. (IBSP 110735); 22.v.2010, I. L. F. Magalhães *et al.* leg. (UFMG 7543); 24.iv.2009, I. L. F. Magalhães *et al.* leg. (UFMG 3419); Reserva da Universidade Federal de Minas Gerais, Campus da Pampulha, 1♂, viii.2000, E. S. S. Álvares leg. (IBSP 114450); C. S. Azevedo, E. P. Machado, E. S. S. Álvares & M. Maria leg. (IBSP 110734); ix.2003, E. S. S. Álvares leg. (IBSP 114443, 114444); Campus da Universidade Federal de Minas Gerais (UFMG), 1♂, x.1994 (UFMG 580), 1°.x.2003, E. O. Machado leg. (UFMG 1627); 30.ix.2005, C. Leal & M. Bertelli leg. (UFMG 1611); 22.ix.2009 (UFMG 3960); 2♂, 22.ix.2009, I. L. F. Magalhães (UFMG 3958); Instituto de Ciências Biológicas (ICB), Campus da Universidade Federal de Minas Gerais (UFMG), 1♂, vii.1999 (UFMG 586); ix.1999 (UFMG 577); 11.x.1999, E. S. S. Álvares leg. (UFMG 588); 02.x.2000, A. H. Wieloch leg. (UFMG 582); 04.x.2001, L. C. Parreira leg. (UFMG 8795); 16.x.2006, G. H. F. Azevedo leg. (UFMG 6287); Creche, 1♂, 14.vii.1999 (UFMG 587); Faculdade de Educação, 1♂, 15.ix.2015, R. B. Oliveira Filho leg. (UFMG 18867); Bairro Álvaro Camargos, 19° 54' 51" S 44° 0' 27" W, 1♂, 28.ix.2016, L. O. Marques leg. (UFMG 20085); Bairro Bom Retiro, Betim, [19° 56' 02.71" S 44° 11' 38.30" W], 3♂, 10.vii.2000, J. A. N. Nogueira leg. (UFMG 592); Contagem, Condomínio Estância do Hibisco, 19° 54' 27.06" S 44° 5' 40.58" W, 1♂, 25.x.2015, R. B. Oliveira Filho leg. (UFMG 19375); 28.iv.2013, P. H. Martins leg. (UFMG 13654); Contagem, 19° 56' 36" S 44° 3' 22" W, 2♂, 29.ix.2010, C. F. Beneves leg. (UFMG 6340); Jardim Zoológico, [19° 56' 51.87" S 43° 59' 57.85" W], 1♂, 29.viii.2000, C. S. Azevedo (UFMG 584); Nova Lima, Reserva Particular do Patrimônio Natural Mata Samuel de Paula, 20° 0' S 43° 52' W, 1♂, 12.x.2006, J. P. P. Pena-Barbosa *et al.* leg. (UFMG 5647); Ouro Preto, Engenheiro Correia, 20° 22' 16.47" S 43° 46' 46.51" W, 8♂, 6.ix.2015, A. Vilarinho leg. (UFMG 18855); Estação Ecológica Tripuí, [20° 23' 45" S 43° 34' 33" W], 1♂, 2001, H. Guimarães (IBSP 114445, 114448). Espírito Santo: São Mateus, Linhares, [19° 23' 20.60" S 40° 3' 50.82" W], 1♀, i.1998, A. D. Brescovit *et al.* leg. (IBSP 110494). Mato Grosso do Sul: Três Lagoas, Horto Barra da Moeda, 21° 1' 26" S 51° 48' 48" W, 1♂, 17.v.2009, M. Uehara-Prado leg.

(UFMG 3207); 3♂, 17.v.2009, M. Uehara-Prado leg. (UFMG 3208). São Paulo: Ubatuba, [23° 26' S 45° 05' W], 1♂, 17.i.1961, M. M. Silva leg. (MZSP 22118).

Etymology. The specific name refers to a typical dish from the State of Minas Gerais, tutu à Mineira.

Diagnosis. Males of *Actinopus tutu* resemble those of *A. longipalpis*, *A. azaghal* and *A. itacolomi* by the presence of three keels on prolateral view of embolus, small total length and inconspicuous patterns of coloration on legs and palp, when present. Resemble *A. insignis* and *A. azaghal* by PA continuous to PI. Resemble *A. azaghal* by a small-serrated area present only in the proximal part of embolus. Differ from *A. itacolomi* by the thinner embolus and absence of a tegular swelling above PA. Females of *A. tutu* resemble those of other species of *Actinopus*, as *A. trinotatus*, *A. wallacei* and *A. pampulha* by the presence of two receptacles, with two or three lobes. Differ from *A. pampulha* and *A. wallacei* by the presence of lateral swelling on each receptacle and from *A. pampulha* and *A. trinotatus* by a pore distribution that reaches 75% on each receptacle.

MALE (UFMG 585): Total length 9.625; Carapace, long 5.125; wide 4.875. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 139 B). With a row of short and weak bristles on border of clypeus. With few bristles between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 139 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 139 E–F). Chelicera with 12 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one basal tooth. Retrolateral row of teeth with seven megateeth (Fig. 139 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 140 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 140 A, C). Tibia IV without spines on dorsal surface with two visible rows of filiform trichobothrias (Fig. 140 D). Ventral pseudoscapulae occupying 10% of the length of tarsus I, 30% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and

tarsi redish brown; Tibia of palp orangewish brown, paler than other articles; Abdomen pale gray with a blueish spots on dorsal surface (Fig. 139 A). **Eyes:** **Diameters:** PME 0.2, PLE 0.28, ALE 0.4, AME 0.28; MOQ: Length 0.88, front width 2.48, back width 1.32; **Interdistances:** PME–PME 1.4, PLE–PME 0.08, AME–AME 0.24, ALE–AME 0.64, ALE–PLE 0.36, AME–PME 0.4. **Ocular area:** OAL 3.125, OAW 2.875, and IF 1.45. **Body:** Clypeus: 0.1875; Fovea: 1.875; Labium: long 1.25; wide 1; Chelicera: long 2.625; wide 1.5; Sternum: long 2.875; wide 3; Abdomen: long 3.875; wide 3.5. **Leg measurements:** I: Fe 5.5/ Pa 2.25/ Ti 3.25/ Me 3.875/ Ta 2.125/ total 17. II: 5.125/ 2.125/ 3/ 3.875/ 2.25/ 16.375. III: 3.75/ 2.25/ 2.25/ 3.875/ 2.5/ 14.625. IV: 5.375/ 2.5/ 4.25/ 4.25/ 2.625/ 19. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-3-3, d0, p0-0-3, r1-3-3; Me v2-3-4, d0, p4-3-4, r4-3-3; Ta v1-2-4, d0, p2-2-3, r0-0-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-7-4, d0, p0-0-2, r2-4-6; Me v3-5-4, d0, p1-3-5, r2-4-3; Ta v1-3-4, d0, p2-3-4, r0-0-1. III – Fe v0, d0, p0, r0; Pa v0, d3-10-17, p0-1-1, r0-0-3; Ti v0-2-3, d1-0-15, p0-1-1, r0-3-7; Me v0-4-5, d4-1-3, p0-3-3, r0-4-6; Ta v0, d0, p0-3-3, r0-0-3; IV – Fe v0, d0, p0, r0; Pa v0, d16-9-10, p0, r0; Ti v1-3-3, d0, p0, r0; Me v3-3-4, d0-0-1, p1-2-2, r0-0-2; Ta v0, d0, p0-2-0, r0-0-3. **Palp:** PA well developed. Embolus with three keels (PAC, PI and PS). BTA developed, in the middle of tegulum prolateral surface; Prolateral surface of tegulum with cusps next the base of the embolus and one cusp in the middle of the width of tegular base; PA continuos to PI; Embolar bases thinner (Fig. 143 A–C).

FEMALE (UFMG 5647): Total length 14.75; Carapace, long 6.375; wide 5.625. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 141 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 141 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 141 E–F). Chelicera with six denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one tooth, basal to megateeth. Retrolateral row of teeth with six megateeth (Fig. 141 D). Patella III with distal interrupted crown of thorns and tibiae III with distal developed crown of thorns (Fig. 142 A–B). Patella IV with prolaterodorsal short spines along the extension of articule

(Fig. 142 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 142 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp yellowish brown; Abdomen pale brown (Fig. 141 A). 10 labial cuspules, 77 in right maxilla and 82 in left. **Eyes:** **Diameters:** PME 0.2, PLE 0.36, ALE 0.4, AME 0.12; **MOQ:** Length 1.16, front width 3.08, back width 2.92; **Interdistances:** PME–PME 1.72, PLE–PME 0.2, AME–AME 0.36, ALE–AME 0.84, ALE–PLE 0.64, AME–PME 0.68. **Ocular area:** OAL 4.875, OAW 3.875, and IF 4.75. **Body:** Clypeus: 0.5; Fovea: 2.75; Labium: long 1.375; wide 1.25; Chelicera: long 3.125; wide 2.125; Sternum: long 4; wide 3.375; Abdomen: long 7.875; wide 5.75. **Leg measurements:** I: Fe 3.375/ Pa 2.25/ Ti 1.5/ Me 1.875/ Ta 1.125/ total 10.125. II: 3.375/ 2.25/ 1.5/ 2.125/ 1/ 10.25. III: 3.25/ 2.5/ 1/ 2.25/ 1.125/ 10.125. IV: 4.375/ 2.5/ 2.5/ 2.625/ 1/ 13. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-2, d0, p0-1-4, r3-1-2; Me v2-2-2, d0, p4-6-5, r2-8-7; Ta v1-2-4, d0, p3-4-2, r4-4-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-6-5, d0, p0, r3-8-2; Me v0-2-3, d0, p3-7-4, r1-11-6; Ta v2-2-5, d0, p4-4-2, r4-2-4. III – Fe v0, d0, p0, r0; Pa v0, d0-0-24, p0-0-4, r0-3-6; Ti v0, d1-0-17, p0-0-2, r4-9-5; Me v0-0-3, d2-6-4, p4-0-0, r0-3-7; Ta v13-11-10, d0-4-4, p0-4-5, r2-5-3; IV – Fe v0, d0, p0, r0; Pa v0, d12-9-0, p0, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-0-1, p0-1-1, r0; Ta v1-4-12, d0-0-2, p0-5-6, r0-0-2. **Spermathecae:** Represented by two seminal receptacles weakly fused to base, as long as wide, with short duct. Receptacle with two or three irregular lobes with simmilar lenght. Pore distribution reaching 75% of the apice in each receptacle; receptacles base without pores. Lateral swelling absent (Fig. 143 D).

Distribution. BRAZIL. Minas Gerais: Lagoa Santa, Itacarambi, Ibiá, Santana do Riacho, Santa Luzia, Diamantina, Confins, Contagem, Belo Horizonte, Nova Lima, Ouro Preto; Espírito Santo: São Mateus; Mato Grosso do Sul: Três Lagoas; Goiás: Rio Quente; and São Paulo: Ubatuba (Map 8).

Examined material (burned in fire). BRAZIL. Goiás: Rio Quente, Caldas Novas, Parque Estadual da Serra de Caldas Novas, 17°47'34" S 48°42'14" W, 8♂, 25–27.ix.2002, G. Machado leg. (IBSP 114451).

Actinopus azaghal new species

Figs 144–148, Map 8

Type material. Holotype. Male from [15° 27' S 55° 44' W], Chapada dos Guimarães, Mato Grosso, Brazil, 20–30.xi.2000, C. Strussman leg. (MCTP 11531). **Paratypes:** BRAZIL. Mato Grosso: Cuiabá, Universidade Federal de Mato Grosso (UFMT), [15° 36' 33"S 56° 03' 49"W], 1♀, 04.vii.2014, M. Meneguzzi leg. (CZUFMT-ARAC); Tijucal, [15° 37' 58"S 56° 00' 52"W], 1♂, 27.vii.2012, A. Moraes leg. (CZUFMT-ARAC). Minas Gerais: São Gonçalo do Rio Preto, Parque Estadual do Rio Preto (PERP), 1♂, 25.x.2010, J. P. L. Guadanucci leg. (CAD 332); 20–25.xi.2010, W. F. Silva leg. (CAD 265); x.2011, A. H. Apolinario & J. P. L. Guadanucci leg. (CAD 613); Diamantina, Parque Estadual do Biribiri, [18° 07' 13.19" S 43° 34' 47.69" W], 1♂, 24–29.ix.2012, A. H. Apolinario & J. P. L. Guadanucci leg. (CAD 612); [18° 14' S 43° 36' W], 1♂, x.2009, J. P. L. Guadanucci leg. (CAD 17); v.2012 (CAD 480); São Paulo: Luiz Antônio, Estação Ecológica de Jataí (EEJ), [21° 36' 54" S 47° 48' 02" W], 1♂, 3–7.x.2009, A. G. Cristovão leg. (IBSP 161478); Rio Grande do Sul: São Francisco de Paula, [29° 26' S 50° 34' W], Salto, 2♂, 30.viii.2002, G. M. Petersen leg. (MCTP 13665).

Etymology. Refers to Azaghal (as know as Deive Pazos), producer of a podcast called “Nerdcast”, a Brazilian humorist that provide many hours of laughs, essential for the proper development of this work.

Diagnosis. Males of *Actinopus azaghal* resemble those of *A. longipalpis*, *A. tutu*, *A. insignis* and *A. itacolomi* by the presence of three keels on prolateral view of embolus, small total length, and inconspicuous patterns of coloration on legs and palp, when present. Resemble *A. tutu* by PA continuous to PAc and a small serrated area only on proximal part of embolus. Differ from those of *A. itacolomi* by the thinner embolus and swelling above PA absent. *A. azaghal* is very similar to *A. tutu*, but differs by BTA dorsally displaced in the prolateral surface of tegulum and more pronounced PA.

MALE (MCTP 11531): Total length 13.625; Carapace, long 5.5; wide 5.375. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 144 B). With few and sparse short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 144 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 144 E–F).

Chelicera with 13 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and four teeth on basal portion. Retrolateral row of teeth with five megateeth and two denticles, between the three basal megateeth (Fig. 144 D). Patella and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 145 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 145 A, C). Tibia IV without spines on dorsal surface (Fig. 145 D). Ventral pseudoscapulae occupying 30% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi dark brown; Tibia of pall yellowish-dark-brown, paler than other articles. Abdomen pale blueish-gray with many small spots of depigmentation (Fig. 144 A). **Diameters:** PME 0.12, PLE 0.16, ALE 0.36, AME 0.32; MOQ: Length 0.88, front width 2.56, back width 2.28; **Interdistances:** PME–PME 1.6, PLE–PME 0.12, AME–AME 0.2, ALE–AME 0.68, ALE–PLE 0.48, AME–PME 0.52. **Ocular area:** OAL 3.875, OAW 3.125, and IF 2.375. **Body:** Clypeus: 0.25; Fovea: 1.875; Labium: long 1.125; wide 1; Chelicera: long 2.75; wide 1.625; Sternum: long 3.625; wide 2.5; Abdomen: long 5.625; wide 3.755. **Leg measurements:** I: Fe 5.5/ Pa 2.5/ Ti 3.25/ Me 4.125/ Ta 2.125/ total 17.5. II: 5.125/ 2.5/ 2.5/ 4.25/ 2.375/ 16.75. III: 4/ 2.375/ 2.5/ 3.75/ 2.75/ 15.375. IV: 5.875/ 2.5/ 4.75/ 4.875/ 2.875/ 20.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-3, d0, p0-0-1, r0; Me v3-4-4, d0, p1-2-2, r1-0-2; Ta v0, d0, p0-0-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-1-3, d0, p0, r1-1-2; Me v3-4-4, d0, p0-0-2, r0; Ta v1-0-2, d0, p0-2-2, r0. III – Fe v0, d0, p0, r0; Pa v0, d3-7-18, p0, r0-0-2; Ti v0, d1-0-11, p0-0-2, r0-1-4; Me v0-3-4, d0-0-2, p1-0-1, r1-1-2; Ta v0, d0, p1-0-3, r0-0-2; IV – Fe v0, d0, p0, r0; Pa v0, d13-10-3, p0, r0; Ti v0-0-2, d0, p0, r0; Me v2-2-3, d0, p0-0-1, r0-0-1; Ta v0, d0, p0-0-5, r0-0-2. **Palp:** PA well developed. Embolus with three keels (PAc, PI and PS); Prolateral surface of tegulum with three cups next to the base of the embolus; PA continuous to PI; Embolar bases thin (Fig. 148 A–C).

FEMALE (CZUFMT-ARAC): Total length 21.66; Carapace, long 9.16; wide 8.33. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 146 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, many long bristles between posterior eyes–fovea and long bristles between lateral eyes–edge of carapace. Sternum

with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 146 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 146 E–F). Chelicera with fourteen denticles between prolateral and retrolateral row of teeth. Prolateral row of teeth with five megateeth and two teeth between the three basal megateeth. Retrolateral row of teeth with five megateeth and two basal teeth (Fig. 146 D). Patella III with distal interrupted crown of thorns and tibiae III with distal developed crown of thorns (Fig. 147 A–B). Patella IV with prolaterodorsal short spines along the extension of articule, these spines are more numerous on basal portion (Fig. 147 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 147 D). Carapace and chelicerae pale brown; Sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp yellowish brown; Abdomen pale gray (Fig. 146 A). 24 labial cuspules, 98 in right maxilla and 107 in left. Eyes: Diameters: PME 0.48, PLE 0.4, ALE 0.44, AME 0.24; MOQ: Length 1.32, front width 3.68, back width 3.6; Interdistances: PME–PME 2.08, PLE–PME 2.4, AME–AME 0.44, ALE–AME 1.24, ALE–PLE 0.72, AME–PME 0.72. Ocular area: OAL 6.8125, OAW 4.875, and IF 3. Body: Clypeus: 0.32; Fovea: 4; Labium: long 1.8125; wide 1.75; Chelicera: long 4.625; wide 3.25; Sternum: long 5.875; wide 4.875; Abdomen: long 10; wide 8.66. Leg measurements: I: Fe 3.16/ Pa 3.33/ Ti 2.16/ Me 3/ Ta 1.5/ total 13.16. II: 5/ 3.33/ 2.16/ 3.16/ 1.33/ 15. III: 3.66/ 3.83/ 1.33/ 3.33/ 1.16/ 13.33. IV: 6.16/ 4/ 3/ 3.83/ 1.16/ 18.16. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-4-7, d0, p0-0-3, r5-8-5; Me v2-3-4, d0, p4-6-7, r4-12-8; Ta v0-4-1, d0, p3-4-2, r3-3-1. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-4, d0, p0, r6-12-07; Me v0-3-4, d0, p1-7-11, r5-20-9; Ta v2-3-4, d0, p4-8-2, r5-4-2. III – Fe v0, d0, p0, r0; Pa v0, d0-0-18, p0-0-2, r0-1-5; Ti v0, d1-0-16, p0-0-3, r5-8-5; Me v0-0-2, d5-6-4, p0, r0-8-6; Ta v11-12-31, d1-6-9, p0-2-5, r1-4-4; IV – Fe v0, d0, p0, r0; Pa v0, d18-18-8, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0-0-1, p0-1-3, r0; Ta v5-11-18, d0, p2-5-10, r0-1-3. **Spermathecae:** Represented by two seminal receptacles weakly fused to base, longer than wide, with short duct. Receptacle with one single lobe. Pore distribution reaching 80% of the apice in each receptacle; receptacles base without pores. Lateral swelling absent (Fig. 148 D).

Distribution. BRAZIL. Mato Grosso: Chapada dos Guimarães; Rio Grande do Sul: São Francisco de Paula; São Paulo: Luiz Antônio; and Minas Gerais: São Gonçalo do Rio Preto (Map 8).

***Actinopus itacolomi* new species**

Figs 149–153, Map 8

Type material. Holotype. Male from 20° 24.618' S 43° 30.469' W, Parque do Itacolomi, Ouro Preto, Minas Gerais, Brazil, 10–14.i.2005, R. Bertani, C. S. Fukushima, M. P. M. Pavani & R. Martins leg. (IBSP). **Paratypes:** BRAZIL. Bahia: Chapada Diamantina, Gerais da Volta da Serra, Estrada, 1198m, 12° 39' 1.62" S 41° 33' 8.69" W, 1♂, 18.ii.2008 (IBSP). Minas Gerais: Grão Mogol, Parque Estadual de Grão Mogol, 16° 33' 11.6" S 42° 54' 9.68" W, 1♂, 10–24.i.2014, F. Leal leg. (UFMG 14841); Leme do Prado, Estação Ecológica de Acauã, Linha de pitfall 1, aceiro em área de mata secundária/Acauã 1, 17° 7' 56.5" S 42° 43' 58.9" W, 1♀, 18–28.ii.2013, P. H. Martins leg (UFMG 18773, UFMG 18774); Linha de pitfall, trilha em área de mata com afloramento de cana, próximo a lagoa/AC3-9, 17° 8' 0.7" S 42° 46' 5.1" W, 1♂, 18–28.ii.2013, P. H. Martins leg. (UFMG 18784, UFMG 18785); Linha de pitfall, trilha em área de mata com afloramento de cana, próximo a lagoa/AC3-10, 17° 8' 0.7" S 42° 46' 5.1" W, 1♀, 18–28.ii.2013, P. H. Martins leg. (UFMG 18786); Sede da Estação, coleta aleatória, área de mata secundária, próxima a ambiente urbano/AC10-1, 17° 7' 56.22" S 42° 46' 7.98" W, 1♀, 18–28.ii.2013, P. H. Martins leg. (UFMG 18807); 2♀, 18–28.ii.2013, P. H. Martins leg. (UFMG 18808); Três Marias, [18° 12' S 45° 13' W], 1♂, A. J. Mayhé-Nunes & J. M. Queiroz leg. (IBSP, IBSP); 2♂, A. J. Mayhé-Nunes & J. M. Queiroz leg. (IBSP); Diamantina, [18° 14' S 43° 36' W], 1♂, 01.iii.2010 (CAD 78); São Gonçalo do Rio Preto, Parque Estadual do Rio Preto (PERP), [18° 9' 15" S 43° 20' 50" W], 1♂, 10.xi.2009, C. Rodrigues (CAD 79); 20–25.x.2010, G. Monteiro, F. Sá, W. F. Silva & J. P. L. Guadanucci leg. (CAD 251); Gouveia, Fazenda Fagundes, 18° 25' 56.42" S 43° 44' 49.56" W, 1♂, 7.i.2013, P. H. Martins leg. (UFMG 19886); Carrancas, Fazenda Chapada, [21° 29' 23" S 44° 38' 43" W], 1♂, 18.i.2008, S. S. P. Almeida leg. (MNRJ 6796);

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus itacolomi* resemble those of *A. longipalpis*, *A. tutu* and *A. azagaheni* by the presence of three keels on prolateral view of embolus, small total length, and inconspicuous patterns of coloration on legs and palp, when present. Differs from *A. longipalpis* by the presence of embolar serrated area. Resemble *A. tutu* by BTA inserted medially in the prolateral surface of tegulum. Differ from all those species by the point of origin of PA between PI and PAc; Serrated area, along to PAc; Tegulum and embolus large; Swollen above PA present.

MALE (IBSP): Total length 10.125; Carapace, long 3.875; wide 4.625. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 149 B). With short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 149 C). Rastellum inconspicuous than others, inverted V-shaped, hirsute, without spines in apice (Fig. 149 E–F). Chelicera with five denticles along the prolateral row of teeth and one along the retrolateral row. Prolateral row of teeth with six megateeth and one basal tooth. Retrolateral row of teeth with seven megateeth (Fig. 149 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 150 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 150 A, C). Tibia IV without spines on dorsal surface (Fig. 150 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II, 100% of III and IV and 10% of metatarsus IV. Pseudoscapula of tarsi I, tarsi II and metatarsi IV with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp orangewish brown, paler than other articles. Abdomen pale brown (Fig. 149 A). **Eyes: Diameters:** PME 0.2, PLE 0.28, ALE 0.36, AME 0.4; **MOQ:** Length 0.88, front width 2.24, back width 2; **Interdistances:** PME–PME 1.2, PLE–PME 0.04, AME–AME 0.2, ALE–AME 0.6, ALE–PLE 0.44, AME–PME 0.4. **Ocular area:** OAL 3.25, OAW 2.5, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 1.875; Labium: long 1; wide 0.75; Chelicera: long 2.125; wide 1.25; Sternum: long 3.125; wide 2.5; Abdomen: long 6.25; wide 4.125. **Leg measurements:** I: Fe 4.75/ Pa 2/ Ti 3.5/ Me 3.125/ Ta 2/ total 15.375. II: 4.125/ 2/ 2.625/ 3.5/ 2.125/ 14.375. III: 3.5/ 2/ 2.125/ 3.25/ 2.125/ 13. IV: 4.75/2.125/3.875/3.875/2.5/17.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-4, d0, p0-0-2, r0-0-1; Me

v5-6-4, d0, p2-3-3, r3-4-2; Ta v4-3-5, d0, p2-3-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-5, d0, p0-0-1, r0-0-1; Me v6-4-5, d0, p1-4-3, r2-2-0; Ta v6-5-5, d0, p2-4-3, r0. III – Fe v0, d0, p0, r0; Pa v0, d5-11-24, p0-0-1, r0-0-2; Ti v0-0-2, d1-0-14, p0-0-1, r0-0-1; Me v3-5-3, d2-1-1, p0-1-2, r1-3-5; Ta v0, d0, p0, r0-4-5; IV – Fe v0, d0, p0, r0; Pa v0, d11-11-5, p0, r0; Ti v0-0-2, d0, p0, r0; Me v3-2-4, d0, p1-2-2, r0-1-0; Ta v0, d0, p2-3-2, r0. **Palp:** PA well developed. Embolus with three keels (PAC, PI and PS). BTA developed, dorsally inserted; Prolateral surface of tegulum with cusps along the middle of width of PAC to embolar base; Point of origin of PA between PI and PAC; Embolar base wide (Fig. 153 A–C).

FEMALE (UFMG 18786): Total length 22.5; Carapace, long 8.66; wide 8.33. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row recurve (Fig. 151 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, many long bristles between posterior eyes–fovea and few short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 151 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 151 E–F). Chelicera with twelve denticles between prolateral and retrolateral row of teeth. Prolateral row of teeth with one basal denticle and five megateeth. Retrolateral row of teeth with six megateeth and two teeth between three basal megateeth (Fig. 151 D). Patella III with distal crown of thorns and tibiae III with distal developed crown of thorns (Fig. 152 A–B). Patella IV with prolaterodorsal short spines along the extension of articule, these spines are more numerous on basal portion (Fig. 152 C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 152 D). Carapace and chelicerae brown, chelicerae with one longitudinal row lighter, yellowish brown; Sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp redish brown; Abdomen pale brown (Fig. 151 A). 13 labial cuspules, 98 in right maxilla and 85 in left. Eyes: Diameters: PME 0.24, PLE 0.36, ALE 0.2, AME 0.4; MOQ: Length 1.32, front width 3.84, back width 3.72; Interdistances: PME–PME 2.36, PLE–PME 0.12, AME–AME 0.36, ALE–AME 1.32, ALE–PLE 0.72, AME–PME 0.96. Ocular area: OAL 6.4, OAW 5.1, and IF 3.25. Body: Clypeus: 0.83; Fovea: 3.66; Labium: long 2; wide 1.6875; Chelicera: long 5.66; wide 3; Sternum: long 5.9375; wide 5.875; Abdomen: long 12.33; wide 8.5. Leg measurements: I: Fe 7.5/ Pa 5.5/ Ti 3.5/ Me 4.66/

Ta 2.16/ total 23.33. II: 7.66/ 5.33/ 3.66/ 4.833/ 2.66/ 24.166. III: 7.5/ 6.166/ 2.833/ 5.5/ 2.166/ 24.166. IV: 10/ 6.166/ 6/ 6.33/ 2.66/ 31.166. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-4-4, d0, p0-4-3, r6-8-5; Me v3-2-5, d0-0-4, p5-9-6, r5-12-9; Ta v1-4-3, d0, p5-4-2, r5-3-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v4-4-3, d0, p0, r11-7-7; Me v3-4-5, d0, p2-6-4, r1-14-6; Ta v2-4-7, d0, p6-4-2, r4-0-2. III – Fe v0, d0, p0, r0; Pa v0, d0-0-35, p0-0-2, r0-1-9; Ti v0, d1-0-23, p0-0-3, r0-13-11; Me v0-0-3, d6-9-10, p0, r0; Ta v29-16-12, d0-4-5, p3-5-5, r3-7-5; IV – Fe v0, d0, p0, r0; Pa v0, d21-19-7, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0-0-1, p0-1-3, r0; Ta v5-8-8, d0-0-3, p2-6-6, r0-0-3. **Spermathecae:** Represented by two seminal receptacles weakly fused to base, longer than wide, with short duct. Receptacle with one single lobe, with lateral sides longer than internal sides. Pore distribution reaching 50% of the apice in each receptacle; receptacles base without pores. Lateral swelling absent (Fig. 153 D).

VARIATION.

FEMALES (n=5): **Eyes: Diameters:** PME 0.16–0.24, PLE 0.24–0.4, ALE 0.16–0.24, AME 0.28–0.4; **MOQ:** Length 0.92–1.32, front width 2.72–3.84, back width 2.4–3.72; **Interdistances:** PME–PME 1.52–2.36, PLE–PME 0.12–0.2, AME–AME 0.2–0.36, ALE–AME 0.8–0.32, ALE–PLE 0.44–0.72, AME–PME 0.6–0.96. **Ocular area:** OAL 4.1–9.1, OAW 3.3–7.7, and IF 2–3.5. **Body:** Total length: 13.3–22.5; Carapace: long 5.6–7.5; wide 4.8–8.33; Clypeus: 0.5–0.83; Fovea: 2.2–3.66; Labium: long 1.3–2; wide 1–1.68; Chelicera: long 3.12–5.66; wide 1.93–3; Sternum: long 3.62–5.93; wide 3.06–4.68; Abdomen: long 7.5–12.33; wide 5.2–8.5. **Leg measurements:** I: Fe 3–7.5/ Pa 2–5.5/ Ti 1.33–3.5/ Me 1.66–4.66/ Ta 1–2.16/ total 9–23.33. II: 1.5–7.66/ 1.16–5.33/ 1.33–3.66/ 1.83–4.83/ 1–2.66/ 6.83–24.16. III: 3–7.5/ 2.5–6.16/ 1–2.83/ 1.83–5.5/ 0.83–2.16/ 9.16–24.16. IV: 4–10/ 2.5–6.16/ 2.33–6/ 2.5–6.33/ 1.16–2.66/ 12.5–31.16. Formula 4123.

Distribution. BRAZIL. Minas Gerais: Ouro Preto, Três Marias, São Gonçalo do Rio Preto, Grão Mogol, Leme do Prado, Gouveia, Carrancas; Bahia: Chapada Diamantina (Map 8).

Actinopus longipalpis C. L. Koch, 1842

Figs 154–156, Map 8

Actinopus longipalpis C. L. Koch, 1842: 102, f. 754 (holotype ♂, [34° 53' 55"S 56° 10' 01"W], Montevideo, Uruguay, ZMB 2107, examined); World Spider Catalog, 2018.

Diagnosis. Males of *Actinopus longipalpis* resembles *A. insignis* by absence of serrated area on copulatory bulb but differ by PS longer than PI on dorsal view (Fig. 156 B).

MALE (ZMB 2107): Total length 11.37; Carapace, long 6.62; wide 6.5. Carapace anterior part tapering, subquadrate. Anterior eye row slightly procurved, posterior row recurve (Fig. 154 B). Without bristles between AME–clypeus. Sternum with eight sigillae strongly fused in the middle (Fig. 154 C). Rastellum protuberant, inverted Vshaped, hirsute, without spines on apice (Fig. 156 D–E). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with megateeth and denticles. Retrolateral row of teeth with megateeth and teeth between megateeth. Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 155 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 155 A, C). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 155 D). Ventral pseudoscapulae occupying 40% of the length of tarsi I and II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibia, metatarsi and tarsi redish brown and abdomen pale gray (Fig. 154 A). **Eyes: Diameters:** PME 0.24, PLE 0.32, ALE 0.48, AME 0.44; MOQ: Length 1.24, front width 3.08, back width 2.88; **Interdistances:** PME–PME 1.72, PLE–PME 0.16, AME–AME 0.2, ALE–AME 0.72, ALE–PLE 0.56, AME–PME 0.6. **Ocular area:** OAL 7.62, OAW 3.87, and IF 2.05. **Body:** Clypeus: 0.4; Fovea: 1.64; Labium: long 1.7; wide 1.5; Chelicera: long 3.2; wide 2; Sternum: long 4.2; wide 4; Abdomen: long 4.87; wide 4.37. **Leg measurements:** I: Fe 5.75/ Pa 2.75/ Ti 3.25/ Me 4/ Ta 2.25/ total 18. II: 5.62/ 2.5/ 3.12/ 4.37/ 2.5/ 18.12. III: 5/ 2.87/ 2.5/ 4.75/ 2.87/ 18. IV: 5.625/ 2.5/ 5.12/ 5.62/ 2.87/ 21.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0, p0, r0; Ta v0, d0, p0-3-3, r0-1-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r1-1-1; Me v0-2-0, d0, p0-0-3, r0-0-2; Ta v0, d0, p0-2-3, r0-2-3. III – Fe v0, d0, p0, r0; Pa v0, d8-12-19, p1-3-3, r0-0-2; Ti v1-0-3, d0-1-11, p1-1-4, r0-1-3; Me v1-1-2, d0, p2-3-3, r0-1-5; Ta v0, d0, p1-3-3, r0-2-0; IV – Fe v0, d0, p0, r0; Pa v0, d20-9-3, p2-2-0, r0; Ti v0-1-3, d0, p0, r0; Me v3-4-3, d0, p0-3-4, r0-0-2; Ta v0, d0, p0-5-6, r0-1-0. **Palp:** PA poorly developed, embolus with three keels (Pac, PI

and PS). BTA poorly developed in both prolateral and dorsal view; prolateral surface of tegulum without serrated area; embolar bases thinner than basal apice (Fig. 156 A–C).

Note. The holotype is in a poor condition; hindering the mobility of the chelicerae, which prevented the examen of the cheliceral teeth.

VARIATION.

MALES (n=10): **Eyes:** **Diameters:** PME 0.2–0.24, PLE 0.32, ALE 0.48–0.52, AME 0.4–0.44; **MOQ:** Length 1.2–1.24, front width 3.08–3.6, back width 2.88–3.2; **Interdistances:** PME–PME 1.72–1.96, PLE–PME 0.16–0.2, AME–AME 0.2–0.4, ALE–AME 0.72–1.08, ALE–PLE 0.56, AME–PME 0.6–0.64. **Ocular area:** OAL 5.5–7.62, OAW 3.87–4.25, and IF 2.05–3. **Body:** Total length: 11.37–12.5; Carapace: long 6.62–7.25; wide 6.5–6.87; Clypeus: 0.37–0.4; Fovea: 1.64–2.8; Labium: long 1.7; wide 1.5; Chelicera: long 3.2–3.6; wide 2–2.4; Sternum: long 4.2–5; wide 4–4.3; Abdomen: long 4.87–5.25; wide 4.37–4.87. **Leg measurements:** I: Fe 5.75–6.25/ Pa 2.75/ Ti 3.25–3.5/ Me 4–4.37/ Ta 2.25–2.87/ total 18–19.75. II: 5.62–6/ 2.5–2.87/ 3.12–3.5/ 4.37–4.62/ 2.5–2.75/ 18.12–19.75. III: 5–5.25/ 2.87–3.5/ 2.5–2.87/ 4.75–5/ 2.87–3.37/ 18–20. IV: 5.62–6.75/ 2.5–3.37/ 5.12–5.37/ 5.62–6.12/ 2.87/ 21.75–25.21. Formula 4123.

Distribution. ARGENTINA. Corrientes: San Cosme; URUGUAY. Montevideo, Canelones (Map 8).

Material examined. ARGENTINA: Corrientes, San Cosme, [27° 31' 00"S 58° 34' 00"W] 1♂, C. I. Wurth leg. (MACN 19817).

Actinopus insignis (Holmberg, 1881)

Figs 157–159, Map 8

Aussereria insignis Holmberg, 1881: 171, pl. 1, f. 2 (Holotype ♂, Provincia Bonaerensis, Chacabuco, Zárate, Buenos Aires, Argentina, ZMUC, not examined).

Actinopus insignis; Simon, 1892: 80; World Spider Catalog, 2018.

Note. As the type is not examined, the specimens here attributed to *A. insignis* were recognized based on the known geographic range of the species and in morphological characteristics highlighted in the original description.

Diagnosis. Males of *Actinopus insignis* resemble those of *A. itacolomi*, *A. longipalpis*, *A. tutu* and *A. azagaheni* by the presence of three keels on prolateral view of embolus, small total length, and inconspicuous patterns of coloration on legs and palp, when present. Resemble *A. longipalpis* by absence of serrated area below PAc. Resemble *A. azaghal* and *A. longipalpis* by BTA dorsally inserted. Resemble *A. azaghal* and *A. tutu* by PA continuous to PI. Differ from all these species by the very inconspicuous and delicate PAc.

MALE (MACN-Ar 19824): Total length 13.875; Carapace, long 6.375; wide 6.625. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 157 B). With few short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 157 C). Rastellum protuberant, inverted V-shaped, with some short bristles, without spines in apice (Fig. 157 E–F). Chelicera with ten denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and two basal teeth. Retrolateral row of teeth with six megateeth and six denticles between the two basal megateeth (Fig. 157 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 158 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 158 A, C). Tibia IV without spines on dorsal surface (Fig. 158 D). Ventral pseudoscopulae occupying 40% of the length of tarsus I, 50% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish brown; Tibia of palp orangewish brown, paler than other articles; Abdomen bluewish pale gray, with many depigmentation spots (Fig. 157 A). **Eyes: Diameters:** PME 0.2, PLE 0.48, ALE 0.6, AME 0.32; MOQ: Length 1.32, front width 3.48, back width 3; **Interdistances:** PME–PME 1.88, PLE–PME 0.16, AME–AME 0.2, ALE–AME 1.04, ALE–PLE 0.64, AME–PME 0.68. **Ocular area:** OAL 5.125, OAW 4, and IF 3.25. **Body:** Clypeus: 0.375; Fovea: 2.625; Labium: long 1.5; wide 1.375; Chelicera: long 3.375; wide 1.625; Sternum: long 5.125; wide 3.875; Abdomen: long 7.5; wide 5.625. **Leg measurements:** I: Fe 6.25/ Pa 2.625/ Ti 3.375/ Me 4.375/ Ta 2.5/ total 19.125. II: 5.625/ 2.875/ 2.625/ 4.25/ 2.5/ 17.875. III: 5/ 3.125/ 2.875/ 5/ 2.875/ 18.875.

IV: 6.75/ 3.375/ 5.5/ 5.625/ 3.25/ 24.5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v1-2-2, d0, p1-0-3, r0; Ta v0-2-0, d0, p0-2-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-2-0, d0, p0, r0-4-4; Me v0-3-3, d0, p0-0-2, r0-2-5; Ta v0-2-2, d0, p0-1-3, r0-1-3. III – Fe v0, d0, p0, r0; Pa v0, d5-7-30, p0-0-2, r0-0-1; Ti v0, d1-0-16, p0-0-4, r1-0-3; Me v0-0-2, d2-0-1, p2-2-1, r0-1-6; Ta v0, d0, p0, r0-0-4; IV – Fe v0, d0, p0, r0; Pa v0, d17-16-6, p0, r0; Ti v0-1-3, d0, p1-0-3, r0; Me v3-3-4, d0-0-1, p2-3-4, r0-0-1; Ta v0, d0, p3-5-4, r0. **Palp:** PA well developed. Embolus with three keels (PAc, PI and PS). BTA developed, dorsally displaced; Prolateral surface of tegulum without cusps; PA continuous to PI; Embolar base thin (Fig. 159 A–C).

Distribution. ARGENTINA. Misiones: Pindapoy (Map 8).

Examined material. ARGENTINA: *Misiones*: Pindapoy, [27° 35' 22.22" S 55° 50' 00.04" W], 2♂, 16.i.1942, P. Williner leg. (MACN-Ar 19824).

Group *parafundulus*

Diagnosis. The species included on group *parafundulus* are unique by the Embolar keels restricted to median sector of embolus, being represented by short prominent lamellae on prolateral view. Additional diagnostic characters are: small total length; abdomen without *scutum*; tegulum short and rounded; BTA developed, placed medially on prolateral tegular surface; serrated area represented by a small and bounded area on embolus bases, above the last keel (PI in *A. parafundulus*, and PAc in *A. urucui*).

Species included. *A. parafundulus* n. sp.; and *A. urucui* n. sp.

***Actinopus parafundulus* new species**

Figs 160–162, Map 9

Type material. Holotype. Male from [15° 44' 46" S 49° 19' 43" W], Jaraguá, Goiás, Brazil, 2001, A. Nunes leg. (MPEG 22073). **Paratypes:** BRAZIL. Mato Grosso: Chapada dos Guimarães, [15° 27' 10.26" S 55° 44' 21.02" W], 1♂, 20–29. xi.2000, C. Strussman leg. (MCTP 11532, 11543); 15–21.xii.2000, C. Strussman leg. (MCTP 13621); 3♂, 15–21.xii.2000, C. Strussman leg. (MCTP 13622). Goiás: Jaraguá, [15° 44' 46" S 49° 19' 43" W], 1♂, 2001, A. Nunes leg. (MPEG 2279); 8♂, 2001, A. Nunes leg.

(MPEG 2278); 15♂, 2001, A. Nunes leg. (MPEG 2242); 21♂, 2001, A. Nunes leg. (MPEG 2241, 1♂ removed for SEM).

Etymology. The specific name is a composed Latin noun and refers to the paraembolyc apophysis, which is very pronounced in this species.

Diagnosis. Males of *Actinopus parafundulus* differ from *A. urucui* by the longer tegulum; presence of only two keels (PS and PI) on copulatory bulb; and by the larger PA founded in *Actinopus*, extrapolating the tegular lateral edge (Fig. 162 A–C).

MALE (MPEG 2242): Total length 10.5; Carapace, long 5.7; wide 5.8. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 160 B). With five short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 160 C). Rastellum protuberant, inverted V-shaped, hirsute, with one spine on apice (Fig. 160 E–F). Chelicera with seven denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one basal tooth. Retrolateral row of teeth with five megateeth and one denticle between the thirty distal and forty basal megateeth (Fig. 160 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 161 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 161 A, C). Tibia IV without spines on dorsal surface (Fig. 161 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi yellowish brown; Abdomen pale brown (Fig. 160 A). **Eyes: Diameters:** PME 0.4, PLE 0.4, ALE 1.6, AME 0.3; **MOQ:** Length 0.83, front width 1, back width 1.8; **Interdistances:** PME–PME 1.4, PLE–PME 0.4, AME–AME 0.1, ALE–AME 0.55, ALE–PLE 0.11, AME–PME 0.36. **Ocular area:** OAL 2.92, OAW 2.56, and IF 0.76. **Body:** Clypeus: 0.11; Fovea: 1.2; Labium: long 1.2; wide 1.1; Chelicera: long 2.6; wide 1.5; Sternum: long 4.1; wide 3.3; Abdomen: long 4.8; wide 3.8. **Leg measurements:** I: Fe 7.2/ Pa 2.7/ Ti 4.7/ Me 5.3/ Ta 3.3/ total 23.2. II: 6.4/ 2.7/ 4.2/ 5.3/ 3.3/ 21.9. III: 5.5/ 2.6/ 3.6/ 5.5/ 3.8/ 21. IV: 7.4/ 3/ 6.3/ 5.2/ 4/ 25.9. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-5, d0, p0-0-

3, r0; Me v3-5-3, d0, p3-3-3, r0-4-3; Ta v0-2-4, d0, p0-1-0, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-3-3, d0, p0-0-1, r0-3-2; Me v4-4-5, d0, p2-3-2, r2-3-1; Ta v0-2-2, d0, p2-3-3, r0. III – Fe v0, d0, p0, r0; Pa v0, d4-14-32, p0-0-1, r0-0-1; Ti v0-1-3, d1-0-14, p0-1-1, r0-2-4; Me v3-5-3, d0-5-5, p1-0-1, r1-2-6; Ta v0, d0, p2-5-5, r0-7-4; IV – Fe v0, d0, p0, r0; Pa v0, d12-11-5, p0-0-1, r0; Ti v0-0-2, d0-0-2, p0, r0; Me v2-0-5, d0-1-1, p1-3-4, r0-0-2; Ta v0, d0, p2-4-3, r0 **Palp:** PA well developed, extrapolating the tegular lateral edge. Embolus with two keels (PI and PS). BTA developed, dorsal; Serrated area small, restricted to embolar base, below PI; PA continuous to PI; Embolar base thin (Fig. 162 A–C).

MALES (n=10): **Eyes:** **Diameters:** PME 0.38–0.44, PLE 0.33–0.44, ALE 0.16–0.22, AME 0.16–0.27; **MOQ:** Length 0.7–0.11, front width 0.88–1, back width 1.3–1.8; **Interdistances:** PME–PME 1.2–1.5, PLE–PME 0.38–0.44, AME–AME 0.11±0.22, ALE–AME 0.44±0.55, ALE–PLE 0.11±0.11, AME–PME 0.36–0.4. **Ocular area:** OAL 2.92–3.24, OAW 2.56–2.8, and IF 0.76–1.05. **Body:** Total length: 9.8–13.8; Carapace: long 5.2–6; wide 4.8–5.8; Clypeus: 0.055–0.11; Fovea: 1.2–2.3; Labium: long 0.8–1.3; wide 0.6–1.1; Chelicera: long 2.1–3.1; wide 1.2–1.6; Sternum: long 2.7–4; wide 2.2–3.1; Abdomen: long 4.8–6.4; wide 3.5–5.1. **Leg measurements:** I: Fe 5.7–6.5/ Pa 2.3–2.6/ Ti 4–4.5/ Me 4.5–5.1/ Ta 2.5–3.4/ total 19–22.1. II: 5.6–6.1/2.3–2.6/3.4–4.5/3.3–5/2.7–3.3/17.3–21.5. III: 3.4–5.2/2–2.5/2.8–3.5/4.5–5.4/3–3.3/15.7–19.9. IV: 6.1–6.7/2.4–2.8/5.2–6/4.8–5.9/2.6–3.8/21.1–25.2.

Distribution. BRAZIL. Goiás: Jaraguá; Mato Grosso: Chapada dos Guimarães (Map 9).

Actinopus urucui new species

Figs 163–165, Map 9

Type material. Holotype. Male from 7° 41' 41.3" S 44° 26' 30.2" W, Fazenda União, topo da chapada, 40 km de Uruçuí, Uruçuí, Piauí, Brazil, 21–26.x.2007, F. M. Oliveira-Neto leg. (MPEG 13206). **Paratypes:** BRAZIL. Piauí: Uruçuí, 40 km de Uruçuí, topo da chapada, Fazenda União, 7° 41' 41.3" S 44° 26' 30.2" W, 1♂, 21–26.x.2007, F. M. Oliveira-Neto leg. (MPEG 11666); Estação Ecológica de Uruçuí-Una, 08° 52' 55" S 44° 57' W, 2♂, 19–29.i.2001, G. G. Martingelli col. (MZSP 21553); Caracol, Parque Nacional da Serra das Confusões, Plote PPBio Semiárido, 9° 13' 32" S 43° 27' 47" W,

1♂ 1J, 08–16.xii.2010, L. S. Carvalho *et al.* leg. (CHNUFPI 239); 1♂, 13.xii.2010, L. S. Carvalho *et al.* leg. (CHNUFPI 172); Caatinga Arbustiva, 9° 13' 16" S 43° 28' 57" W, 1♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 177); 09–15.xii.2010, L. S. Carvalho *et al.* leg. (CHNUFPI 168, 175); 3♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 186); 6♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 185); [09° 13' S 43° 29' W], 1♂ 1J (MPEG 22271); Plote PPBio Semiárido, 9° 13' 16" S 43° 29' 21" W, 1♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 8, 9, 15, 17, 19, 22, 26, 167, 169, 170, 171, 173, 174, 176, 190, 191, 198, 201, 240, 241, 242); 2♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 1, 3, 7, 10, 18, 21, 179, 180, 187, 192, 197, 199, 200); 08–16.xii.2010, L. S. Carvalho *et al.* leg. (CHNUFPI 235); 3♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 5, 11, 181, 188, 189, 193, 195, 203); 4♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 16, 20, 184); 4♂ 1J, X.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 14, 238); 5♂ 1J, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 196); 6♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 12, 13); 11♂, x.2006, P. R. R. Silva *et al.* leg. (CHNUFPI 11, 1♂ removed for SEM); Área de Enclave, 9° 13' 12" S 43° 29' 27" O, 09–15.xii.2010, L. S. Carvalho *et al.* leg. (CHNUFPI 178).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus urucui* differ from *A. parafundulus* by the leg metatarsi and tarsi paler than other articles; shorter tegulum; presence of three keels (PAC, PS and PI) on copulatory bulb; and a smaller PA (Fig. 165 A–C).

MALE (MPEG 13206): Total length 9.375; Carapace, long 4.625; wide 3.875. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 163 B). With short an weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 163 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 163 E–F). Chelicera with eight denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and one basal tooth. Retrolateral row of teeth with six megateeth (Fig. 163 D). Patella III and tibia III with distal crown of well-developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 164 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 164 A, C). Tibia IV without spines on

dorsal surface (Fig. 164 D). Ventral pseudoscopulae occupying 10% of the length of tarsus I, 40% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae pale brown; metatarsi and tarsi of legs yellowish brown, paler than other articles; Abdomen pale gray (Fig. 163 A). **Eyes:** **Diameters:** PME 0.2, PLE 0.2, ALE 0.28, AME 0.24; MOQ: Length 0.68, front width 2.12, back width 1.68; **Interdistances:** PME–PME 1.2, PLE–PME 0.12, AME–AME 0.16, ALE–AME 1.2, ALE–PLE 0.4, AME–PME 0.36. **Ocular area:** OAL 2.625, OAW 2.5, and IF 1.75. **Body:** Clypeus: 0.125; Fovea: 1.125; Labium: long 1; wide 0.87; Chelicera: long 2.375; wide 1.25; Sternum: long 3; wide 2; Abdomen: long 4.5; wide 3.25. **Leg measurements:** I: Fe 4.625/ Pa 2/ Ti 3.125/ Me 4.5/ Ta 2.5/ total 16.75. II: 4.625/ 2/ 3.375/ 4.5/ 2.625/ 17.125. III: 4.125/ 2.125/ 2.625/ 5.125/ 2.625/ 16.625. IV: 5.625/ 2.25/ 4.75/ 4.375/ 2.875/ 19.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-1-3, d0, p0, r0; Me v5-7-6, d0, p3-4-3, r3-4-2; Ta v4-6-5, d0, p1-1-2, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-3, d0, p0, r4-6-2; Me v4-4-3, d0, p1-4-4, r4-6-3; Ta v1-2-3, d0, p1-1-3, r2-3-4. III – Fe v0, d0, p0, r0; Pa v0, d5-5-18, p0-0-1, r0-0-1; Ti v1-1-2, d1-0-16, p0-0-10, r1-2-6; Me v2-2-4, d2-3-1, p2-3-2, r0-3-6; Ta v0, d0, p0, r1-6-1; IV – Fe v0, d0, p0, r0; Pa v0, d17-11-2, p0, r0; Ti v0-3-3, d0, p0-1-0, r0; Me v3-4-7, d0, p1-1-3, r0-0-1; Ta v0, d0, p0-3-4, r0-0-2. **Palp:** PA well developed, pointed. Embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; PA continuous to PAc; Embolar base thin (Fig. 165 A–C).

Distribution. BRAZIL. Piauí: Uruçuí, and Caracol (Map 9).

Group *reznori*

Diagnosis. The species included in the group *reznori* are recognized by the small total length; Tibia of palp paler than other articles; abdomen without *scutum* and with spots of depigmentation on dorsal surface; tegulum and embolus thin and elongated along longitudinal line; BTA developed and displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Embolus with only two keels (PS and PI). Serrated area represented by few cusps widespread along the embolus.

Species included. *Actinopus reznori* n. sp.; and *Actinopus anselmoi* n. sp.

***Actinopus reznori* new species**

Figs 166–168, Map 10

Type material. Holotype. Male from [22° 31' 30.54" S 44° 06' 13.60" W], Volta Redonda, Rio de Janeiro, Brazil, ii.2002, A. L. Costa do Carmo leg. (IBSP 109992).

Paratypes: BRAZIL. Bahia: Barreiras, [12° 08' 51.89" S 44° 59' 42.38" W], 1♂, 30.vii.2000, E. Folly leg. (IBSP 114462). Rio de Janeiro: Volta Redonda, [22° 31' 30.54" S 44° 06' 13.60" W], Floresta de Cicuta, 1♂, 11–18.vi.2001–4–11.iii.2002, Equipe Biota leg. (IBSP 136745); Barra Mansa, [22° 32' 38.03" S 44° 07' 19.83" W], Campus do Sobeu, 1♂, 26–27.xii.1995, E. F. Ramos leg. (IBSP 107954); Itaguaí, Universidade Federal Rural do Rio de Janeiro (UFRRJ), Km 47, [22° 45' 47" S 43° 41' 19" W], 1♂, 8.vii.1957, R. Mello leg. (MNRJ 1972); Rio de Janeiro, Ilha do Fundão, Instituto de Biologia, Dentro do Prédio RLCB, [22° 50' 30" S 43° 14' 09" W], 2♂, 2008–2009 (MNRJ 6793). São Paulo: Ubatuba, Praia da Fortaleza, [23° 31' 42.93" S 45° 09' 57.15" W], 1♂, 05.vi.2004, A. M. Rosa leg. (IBSP 114466).

Etymology. The specific name refers to musician and multi-instrumentalist Michael Trent Reznor, founder of industrial music, leader of the Nine Inch Nails and affiliated to many other bands, in addition to his producer career.

Diagnosis. Males of *Actinopus reznori* differ from those of *A. anselmoi* by the more conspicuous PA; two keels visible on prolateral surface of copulatory bulb and serrated area dorsally located on prolateral surface of embolus (Fig. 168 A–C).

MALE (IBSP 9992): Total length 7.4; Carapace, long 3.9; wide 3.5. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 166 B). With few short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 166 C). Rastellum protuberant, digitiform, hirsute, with a row of short spines on apice (Fig. 166 E–F). Chelicera with ten denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one basal tooth. Retrolateral row of teeth with six megateeth and three denticles along the three basal megateeth (Fig. 166 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 167 A–B). Patela III and IV with spines on prolaterodorsal surface (Fig. 167 A, C). Tibia IV

without spines on dorsal surface (Fig. 167 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II, 10% of metatarsi III and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi yellowish brown; Tibia of palp yellow; Abdomen pale gray (Fig. 166 A). **Eyes:** **Diameters:** PME 0.1870.2, PLE 0.281, ALE 0.343, AME 0.156; **MOQ:** Length 0.843, front width 2.187, back width 1.968; **Interdistances:** PME–PME 1.093, PLE–PME 0.093, AME–AME 0.187, ALE–AME 0.625, ALE–PLE 0.343, AME–PME 0.406. **Ocular area:** OAL 2.5, OAW 2.1, and IF 1.3. **Body:** Clypeus: 2; Fovea: 1.4; Labium: long 1.1; wide 0.9; Chelicera: long 1.9; wide 1; Sternum: long 3.2; wide 2.8; Abdomen: long 3.3; wide 2.4. **Leg measurements:** I: Fe 4.75/ Pa 2/ Ti 3/ Me 3.5/ Ta 2.125/ total 15.375. II: 4.25/ 2/ 3.125/ 3.75/ 2/ 15.125. III: 3.5/ 2/ 2.25/ 3.875/ 2.375/ 14. IV: 4.875/ 2.125/ 4.25/ 4.375/ 2.5/ 18.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-3-4, d0, p0-0-1, r0-0-1; Me v6-6-7, d0, p0-2-2, r2-3-2; Ta v2-2-4, d0, p0, r0-2-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-4-4, d0, p0-0-2, r0-2-7; Me v3-6-7, d0, p0-2-1, r2-3-3; Ta v3-2-4, d0, p0-2-4, r0-3-6. III – Fe v0, d0, p0, r0; Pa v0, d6-5-28, p0-0-4, r0-0-1; Ti v0-0-3, d1-0-13, p0-0-2, r0-0-3; Me v3-5-6, d0-1-5, p0-2-3, r0-3-4; Ta v0, d0, p0-4-3, r0-0-5; IV – Fe v0, d0, p0, r0; Pa v0, d14-18-10, p0, r0; Ti v0-0-2, d0-0-1, p0, r0; Me v2-6-8, d0-0-2, p1-4-4, r0-0-1; Ta v0, d0, p1-6-5, r1-3-4. **Palp:** PA small but conspicuous. Embolus with two keels (PI and PS). BTA developed, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Serrated area represented by cusps dorsally located on prolateral view of embolus; PA continuous to PI; Embolar base thin (Fig. 168 A–C).

Distribution. BRAZIL. Bahia: Barreiras; Rio de Janeiro: Volta Redonda, Barra Mansa, Itaguaí, Rio de Janeiro; and São Paulo: Ubatuba (Map 10).

Actinopus anselmoi new species

Figs 169–171, Map 10

Type material. Holotype. Male from [22° 44' 29.01" S 43° 42' 18.91" W], Instituto de Biologia, Universidade Federal Rural do Rio de Janeiro (UFRRJ), Seropédica, Rio de Janeiro, Brazil, 20.vi.2005, A. J. Mahyé Nunes leg. (IBSP 114469). **Paratypes:** BRAZIL. Rio de Janeiro: Barra Mansa, [22° 32' 38.03" S 44° 07' 19.83" W], Campus do

Sobeu, 3♂, 1997, E. F. Ramos leg. (IBSP 107985, 1♂ removed for SEM); Seropédica, [22° 44' 29.01" S 43° 42' 18.91" W], Universidade Federal Rural do Rio de Janeiro (UFRRJ), Instituto de Biologia, 1♂, 1º.v.2005, R. P. Indicatti leg. (IBSP 114467).

Etymology. The specific name refers to musician Philip Hansen Anselmo, or Phil Anselmo, the main singer of Pantera, one of the most respected trash metal bands of the world.

Diagnosis. Males of *Actinopus anselmoi* differ from those of *A. reznori* by the inconspicuous PA; presence of only one keel on prolateral surface of copulatory bulb and serrated area ventrally located on prolateral surface of embolus (Fig. 171 A–C).

MALE (IBSP 114469): Total length 8; Carapace, long 4.25; wide 4.083. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 169 B). With many short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 169 C). Rastellum protuberant, digitiform, hirsute, with strong spines in apice (Fig. 169 E–F). Chelicera with seven denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth and three denticles along the two basal megateeth (Fig. 169 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 170 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 170 A, C). Tibia IV without spines on dorsal surface and with two visible of thricobothria (Fig. 170 D). Ventral pseudoscopulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Tibia of palp yellowish, paler than other articles. Abdomen pale gray (Fig. 169 A). **Eyes: Diameters:** PME 0.156, PLE 0.187, ALE 0.281, AME 0.218; **MOQ:** Length 0.593, front width 1.968, back width 1.656; **Interdistances:** PME–PME 1.031, PLE–PME 0.093, AME–AME 0.156, ALE–AME 0.531, ALE–PLE 0.218, AME–PME 0.375. **Ocular area:** OAL 2.833, OAW 2.333, and IF 0.75. **Body:** Clypeus: 0.166; Fovea: 1.5; Labium: long 0.583; wide 0.416; Chelicera: long 2.25; wide 1.5; Sternum: long 1.75; wide 1.5; Abdomen: long 4; wide 3.

Leg measurements: I: Fe 6.625/ Pa 2.75/ Ti 4.125/ Me 4.75/ Ta 3/ total 21.25. II: 6.25/ 2.75/ 4/ 5.125/ 3.125/ 21.25. III: 4.75/ 2.625/ 3.25/ 5.125/ 3.625/ 19.375. IV: 6.75/ 3/ 5.75/ 6.125/ 4/ 25.625. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-3, d0, p0-01, r0-0-1; Me v3-5-6, d0, p2-2-1, r1-2-4; Ta v2-2-2, d0, p1-2-2, r1-2-1. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-3-4, d0, p0-01, r0-0-1; Me v3-5-5, d0, p0, r2-0-2; Ta v3-0-1, d0, p0, r0-5-7. III – Fe v0, d0, p0, r0; Pa v0, d5-13-24, p0-0-1, r0-0-4; Ti v0-1-3, d1-0-12, p0-0-1, r0-0-2; Me v0-6-8, d0-0-2, p1-2-2, r2-3-3; Ta v0, d0, p2-3-4, r1-4-3; IV – Fe v0, d0, p0, r0; Pa v0, d13-11-8, p0, r0; Ti v0-1-3, d0-0-1, p0, r0; Me v5-9-4, d0, p1-1-4, r0-0-1; Ta v0, d0, p1-3-4, r0-1-5. **Palp:** PA inconspicuous. Embolus with only one keel (PS). BTA developed and displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Serrated area represented by cusps ventrally located on prolateral surface of embolus; PA continuous to PS; Embolar base thin (Fig. 171 A–C).

Distribution. BRAZIL. Rio de Janeiro: Seropédica; Barra Mansa (Map 10).

Examined material (burned in fire). BRAZIL. Rio de Janeiro: Seropédica, [22° 44' 29.01" S 43° 42' 18.91" W], Universidade Federal Rural do Rio de Janeiro (UFRRJ), Instituto de Biologia, 1♂, 20.X.2005, R. P. Indicatti leg. (IBSP 114468).

Group *cucutaensis*

Diagnosis. The species included in the group *cucutaensis* are readily recognized by the apical tegular process obliquely oriented in relation to embolus, reaching 3/4 the size of the bulb.

Species included. *Actinopus cucutaensis* Mello-Leitão, 1941; *Actinopus robustus* (O. Pickard-Cambridge, 1892); *Actinopus lomalinda* n. sp.; *Actinopus palmar* n. sp.; *Actinopus guajara* n. sp.; and *Actinopus concinnus* n. sp.

***Actinopus cucutaensis* (Mello-Leitão, 1941)**

Figs 172–176, Map 11

Actinopus cucutaensis Mello-Leitão, 1941: 114, f. 1 (holotype ♂, Cucutá, Norte de Santander, Colombia, ICN, burned); World Spider Catalog, 2018.

Diagnosis. Males of *Actinopus cucutaensis* differ from all other species of the genus by the apical tegular process nearly 3/4 the size of the embolus. Differ from those of *A. lomalandi* by the ATP angle of insertion on tegulum and in the presence of a bigger serrated area, which occupies 40% of the length of the embolus, as seen on dorsal view. (Fig. 176 A–C). Females differ from those of all other species of the genus by the two mushroom-shaped receptacles, with a wide, rounded apices, and by approximately 90% of receptacles surfaces covered with pores (Fig. 176 D).

MALE (INPA 3513): Total length 16.62; Carapace, long 7.37; wide 8. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 172 B). Two bristles between AME–clipeus. Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 172 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines (Fig. 172 E–F). Chelicera with 15 denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth and one denticle on basal part. Retrolateral row of teeth with five megateeth and four denticles between three basal megateeth (Fig. 172 D). Patella III and tibia III with distal crown of well-developed thorns, interrupted in the middle on patella III and not interrupt in the middle on tibia III (Fig. 173 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 173 A, C). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 173 D). Ventral pseudoscopulae occupying 30% of the length of tarsi I, 50% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles; In tarsi III and IV, compat. Carapace and chelicera redish brown, sternum yellowish brown, coxae, trochantera, femura and patellae pale brown, tibia, metatarsi and tarsi redish brown, abdomen pale gray (Fig. 172 A). **Eyes: Diameters:** PME 0.31 PLE 0.34 ALE 0.43, AME 1; MOQ: Length 1.28, front width 3.15, back width 2.6; **Interdistances:** PME–PME 1.7, PLE–PME 0.1, AME–AME 0.15, ALE–AME 0.6, ALE–PLE 0.5, AME–PME 0.35. **Ocular area:** OAL 5, OAW 4.16, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 3; Labium: long 1.75; wide 1.37; Chelicera: long 3.37; wide 2.12; Sternum: long 4.5; wide 3.87; Abdomen: long 8.37; wide 5.62. **Leg measurements:** I: Fe 7.87/ Pa 3.25/ Ti 4.75/ Me 5.62/ Ta 3.25/ total 24.75. II: 7.5/ 3.12/ 4.62/ 5.37/ 3.25/ 23.87. III: 6.37/ 3.37/ 3.5/ 6.5/ 3.5/ 23.25. IV: 8.62/ 3.75/ 6.87/ 7.5/ 3.87/ 30.62. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v0-4-5, d0, p0-0-1, r0-0-1; Me v3-3-0, d0, p2-1-3, r2-6-4; Ta v1-3-2, d0, p0-1-3, r1-4-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0-1-0, r0; Ti v1-3-3, d0, p0,

r1-2-3; Me v5-4-2, d0, p1-1-2, r0-1-4; Ta v0, d0, p1-3-2, r3-5-8. III – Fe v0, d0, p0, r0; Pa v0, d3-20-25, p1-0-3, r0-0-4; Ti v2-2-2, d0-1-15, p1-2-4, r0-2-4; Me v4-8-9, d0, p2-1-1, r0-0-1; Ta v0, d0, p1-4-5, r0-3-6; IV – Fe v0, d0, p0, r0; Pa v0, d13-9-4, p2-2-1, r0; Ti v2-2-3, d0, p0-0-1, r0-0-2; Me v2-3-4, d0, p2-5-5, r0; Ta v0, d0, p1-5-6, r0-3-6. **Palp:** PA well developed, embolus without keels (Pa, PI and PS). ATP nearly 3/4 the size of the embolus. BTA poorly developed; prolateral surface of tegulum serrated next the base of the ATP, embolus inserted at 20° angle on the basal portion of the copulatory bulb; embolar bases thin (Figs. 176 A–C).

FEMALE (AMNH): Total length 18.37; Carapace, long 6.12; wide 5.5. Carapace anterior part tapering. Anterior eye row procurved, posterior row slightly recurve. More than 20 short and long bristles between AME–clypeus, one very long bristle and almost 3–5 short bristles between PLE–ALE, more than 30 short and long bristles between posterior eyes–fovea and almost 10–15 short bristles between lateral eyes–edge of carapace (Fig. 174 B). Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 174 C). Rastellum protuberant, subquadrate, hirsute, with a row of spines in the edge of rastellum and short spines in dorsal part of rastellum (Fig. 174 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and two teeth on basal area. Retrolateral row of teeth with five megateeth and three teeth between four basal megateeth (Fig. 174 D). Patella III and tibia III with distal developed crowns of thorns (Fig. 175 A–B). Patella IV with prolaterodorsal spines along the extension of articule (Figs. 175 C). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 175 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, tarsi and palp redish brown, and abdomen pale gray. 16 labial cuspules, 66 in right maxilla and 101 in left. **Eyes: Diameters:** PME 0.2 PLE 0.24 ALE 0.4 AME 0.16; **MOQ:** Length 1.04, front width 2.76, back width 2.6; **Interdistances:** PME–PME 1.6, PLE–PME 0.12, AME–AME 0.32, ALE–AME 0.88, ALE–PLE 0.56, AME–PME 0.56. **Ocular area:** OAL 4.75, OAW 3.75, and IF 0.96. **Body:** Clypeus: 0.37; Fovea: 2.62; Labium: long 1.5; wide 1.12; Chelicera: long 2.5; wide 2.25; Sternum: long 3.87; wide 3.25; Abdomen: long 11.12; wide 8.12. **Leg measurements:** I: Fe 2.62/ Pa 2.12/ Ti 1.62/ Me 1.75/ Ta 0.75/ total 8.87. II: 2.75/ 2.12/ 1.37/ 2/ 0.87/ 9.12. III: 2.5/ 2.37/ 1.12/ 1.12/ 1.37/ 8.5. IV: 3.12/ 2.5/ 2.25/ 2/ 1/ 10.87. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-3-4, r4-9-12; Me v1-

1-2, d0, p5-10-7, r7-10-6; Ta v1-2-2, d0, p5-4-0, r4-3-22. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-2, d0, p0, r2-38-30; Me v0-3-1, d0, p3-7-5, r3-12-3; Ta v2-2-3, d0, p6-7-4, r3-0-0. III – Fe v0, d0, p0, r0; Pa v0, d0-0-27, p0-0-7, r0-0-11; Ti v0-10-14, d2-0-11, p0-0-3, r11-19-15; Me v0-6-8, d1-3-3, p0, r2-8-14; Ta v20-23-16, d0-0-3, p1-10-12, r0-8-12; IV – Fe v0, d0, p0, r0; Pa v0, d20-12-5, p0, r0; Ti v0-0-1, d0, p0, r0; Me v0-0-3, d0-0-3, p0-2-4, r0; Ta v2-10-11, d0, p0, r0-0-10. **Spermathecae:** Seminal receptacles symmetric, longer than wide, with short ducts fused on the base. Both receptacles without lobes, with rounded apices, wider than the ducts. Pore distribution reaching basal portion of each receptacle (Fig. 176 D).

VARIATION.

MALES (n=10): **Eyes:** **Diameters:** PME 0.16–0.31, PLE 0.22–0.4, ALE 0.36–0.56, AME 0.21–0.56; **MOQ:** Length 0.92–1.28, front width 2.28–3.16, back width 2–2.96; **Interdistances:** PME–PME 1.28–1.76, PLE–PME 0.08–0.16, AME–AME 0.08–0.24, ALE–AME 0.52–0.76, ALE–PLE 0.36–0.64, AME–PME 0.32–0.52. **Ocular area:** OAL 3.64–5.1, OAW 3–4.16, and IF 1.5–2.62. **Body:** Total length: 9.87–16.62; Carapace: long 5.12–7.37; wide 5.37–8; Clypeus: 0.12–0.3; Fovea: 2.2–3; Labium: long 1.25–3.9; wide 1–2; Chelicera: long 2.25–3.37; wide 1.5–4; Sternum: long 3.62–4.5; wide 2.62–4; Abdomen: long 4.5–8.37; wide 3.75–5.62. **Leg measurements:** I: Fe 5.75–7.87/ Pa 2.37–3.25/ Ti 3.5–4.75/ Me 3.75–6/ Ta 2.25–3.25/ total 17.62–24.75. II: 5.62–7.5/ 2.37–3.25/ 3.5–4.75/ 4–6.12/ 2.37–3.25/ 17.87–25. III: 4.25–6.37/ 2.37–3.62/ 2.62–3.75/ 4.5–6.75/ 2.53.75/ 16.25–24. IV: 5.25–8.62/ 2.62–3.75/ 4.75–6.87/ 5–7.87/ 2.5–3.87/ 20.12–30,62.

Distribution. BRAZIL. Roraima: Amajari; COLOMBIA. Meta: Pto. Lleras Lomalinda; Santander: Cucutá; VENEZUELA. Aragua: Maracay, and Bolivar (Map 11).

Material examined. VENEZUELA: Aragua: Maracay, El Limón, [10° 18' N 67° 37' W] 1♂, X. Angola leg. (MIZA 423); El Castaño, [10° 17' N 67° 44' S], 700m, 1♂, J. S. de Souza leg. (MIZA 698). Bolivar, [06° 21' N 63° 34' W]: Rio Sipao, 110km E Caicara, (Galley forest), 1♂, 17.VI–4.viii.1987, S&J Peck leg. (AMNH); 70km WC Bolivar, Puente Cocoizas, (Forested ravine in woodland), 2♂, 19.VI–3.viii.1987, S&J Peck leg. (AMNH). BRAZIL: Roraima: Amajari, [03° 23' N 61° 41' W], Ilha de Maracá, Estação Ecológica de Maracá, 2♂, 13.v.1987, J. E. Brasil leg. (INPA 3513, MCN 17595).

COLOMBIA: Meta: Pto. Lleras Lomalinda, $\pm 300\text{m}$, $3^{\circ} 18' \text{ N } 73^{\circ} 22' \text{ W}$, (Grasslands, patches of jungle, woods, marshrlo. Taken in slightly sloping sand), 1♀ 7♂ and 3J, 26.iv.1986, B. T. Carrol leg. (AMNH).

***Actinopus robustus* (O. Pickard-Cambridge, 1892)**

Figs 177–181, Map 11

Pachyloscelis robustus O. Pickard-Cambridge, 1892: 93, pl. 12, f. 5 (♀ female syntypes, Veraguas, Panama, NHM and OUMNH; two syntypes deposited in Oxford examined).

Actinopus robustus; F. O. Pickard-Cambridge, 1897: 6; Quintero-Arias, 2005: 378, f. 4–8, 14–15; Jocqué & Dippenaar-Schoeman, 2006: 58, f. 6a–d; World Spider Catalog, 2018.

Diagnosis. Males of *Actinopus robustus* are similar to those of *A. palmar* by the ATP superposed with the embolus in prolateral view. Differ by the wider tegulum, massive ATP, which is devoid of serrated area (Fig. 181 A–C). Females of *A. robustus* differ from all other species of the genus by the V-shaped spermathecae, with two long, clavate, divergent receptacles (Fig. 181 D).

MALE (AMNH): Total length 14.5; Carapace, long 6.25; wide 6.12. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 177 B). Without bristles between all eyes and areas, all removed and with barely visible inserts. Sternum with six sigillae fused in the middle, two basal sigillae bigger and more demarcated than others (Fig. 177 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 177 E–F). Chelicera with 23 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and two denticles between three basal megateeth. Retrolateral row of teeth with seven megateeth (Fig. 177 D). Patella III and tibia III with distal crown of well developed thorns, in patella III, interrupted in the middle, and in tibia III, not interrupted in the middle (Fig. 178 A–B). Patela III and IV with spines on prolaterodorsal face (Fig. 178 A, C). Tibia IV without spines on dorsal surface (Fig. 178 D). Ventral pseudoscapulae occupying 30% of the length of Tarsi I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicerae redish brown; Sternum, coxae, trochantera, femora, patellae Tibia,

metatarsi and tarsi yellowish brown; Palp and cymbium yellow-redish brow and abdomen gray (Fig. 177 A). **Eyes: Diameters:** PME 0.2, PLE 0.32, ALE 0.4, AME 0.32; **MOQ:** Length 1.12, front width 2.56, back width 2.44; **Interdistances:** PME–PME 1.52, PLE–PME 0.04, AME–AME 0.2, ALE–AME 0.56, ALE–PLE 0.52, AME–PME 0.48. **Ocular area:** OAL 4.62, OAW 3.5, and IF 2. **Body:** Clypeus: 0.25; Fovea: 2.62; Labium: long 1.25; wide 1; Chelicera: long 2.5; wide 1.62; Sternum: long 4.12; wide 3.25; Abdomen: long 7.12; wide 5.37. **Leg measurements:** I: Fe 6.5/ Pa 2.875/ Ti 4/ Me 4.875/ Ta 2.625/ total 20.875. II: 6.25/ 2.75/ 3.875/ 4.875/ 2.875/ 20.625. III: 4.875/ 2.875/ 3.25/ 5.625/ 3.25/ 19.875. IV: 6.875/ 3.125/ 5.625/ 6/ 3.125/ 24.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-5, d0, p0, r0; Me v4-4-5, d0, p5-2-4, r1-3-5; Ta v0-1-1, d0, p1-3-3, r3-7-13. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-3, d0, p0, r0-4-8; Me v3-2-4, d0, p1-1-1, r5-5-5; Ta v0-1-3, d0, p1-4-4, r3-7-8. III – Fe v0, d0, p0, r0; Pa v0, d11-14-35, p1-2-3, r0-0-5; Ti v0-0-3, d0-1-16, p0-0-1, r0-0-5; Me v6-4-7, d2-1-0, p3-2-2, r4-3-6; Ta v0, d0-0-2, p2-6-7, r0-6-7; IV – Fe v0, d0, p0, r0; Pa v0, d20-19-11, p0-1-3, r0; Ti v0-0-2, d0, p0-2-1, r0; Me v2-4-6, d0, p0-0-3, r0-0-1; Ta v0, d0, p3-8-6, r1-4-5. **Palp:** PA well developed, embolus without keels. ATP size 3/4 that of the embolus. BTA poor developed, but visible in both in prolateral and retrolateral view; prolateral surface of tegulum serrated next the base of the embolus, embolus inserted at 30° angle on the basal portion of the copulatory bulb; embolar bases thin (Fig. 181 A–C).

FEMALE (OUMNH): Total length 23.62. 19,625; Carapace, long 7.5; wide 7.25. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve. A lot of short bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace (Fig. 179 B). Sternum with six sigillae fused in the middle, two basal sigillae bigger and more demarcated than others (Fig. 179 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 179 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth and one tooth, between the second and third distal teeth. Retrolateral row of teeth with six megateeth and one tooth between the last basal megateeth (Fig. 179 D). Patella III with distal interrupted developed crown of thorns and tibia III with distal crown of thorns (Fig. 180 A–B). Patella III and IV with

prolaterodorsal short spines along the extension of articule. Patela IV with those prolaterodorsal spines and another retrolaterodorsal restricted in the distal part of article (Fig. 180 A, C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 180 D). Carapace, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, tarsi and palp yellowish brown, chelicerae redish brown and abdomen pale brown (Fig. 179 A). 18 labial cuspules, 102 in right maxilla and 98 in left (Fig. 775). **Eyes: Diameters:** PME 0.24, PLE 0.4, ALE 0.4, AME 0.2; MOQ: Length 1.32, front width 3.28, back width 3.24; **Interdistances:** PME–PME 1.84, PLE–PME 0.16, AME–AME 0.32, ALE–AME 1.08, ALE–PLE 0.72, AME–PME 0.72. **Ocular area:** OAL 5.875, OAW 3.875, and IF 3.125. **Body:** Clypeus: 0.5; Fovea: 3.625; Labium: long 1.875; wide 1.625; Chelicera: long 2.875; wide 2.5; Sternum: long 5.625; wide 4.375; Abdomen: long 11; wide 10.375. **Leg measurements:** I: Fe 4.25/ Pa 2.87/ Ti 2/ Me 2.12/ Ta 0.87/ total 12.12. II: 4.375/ 3/ 1.875/ 2.5/ 0.875/ 12.625. III: 4.125/ 3.375/ 1.125/ 2.625/ 1/ 12.25. IV: 5.125/ 3.75/ 2.875/ 3.75/ 1.625/ 17.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-2-1, d0, p0-0-2, r2-2-2; Me v1-1-2, d0, p5-6-4, r5-6-5; Ta v0-1-2, d0, p1-3-2, r6-2-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0-6-6; Me v0-0-1, d0, p4-6-6, r6-5-5; Ta v0-1-2, d0, p3-6-3, r3-2-3. III – Fe v0, d0, p0, r0; Pa v0, d0-0-15, p0-0-7, r0-0-5; Ti v0, d1-0-15, p0-0-3, r7-10-13; Me v0-0-4, d4-3-3, p3-1-0, r6-10-8; Ta v7-12-13, d0-1-2, p0-3-3, r3-4-3; IV – Fe v0, d0, p0, r0; Pa v0, d16-17-7, p0, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-0-1, p0-1-2, r0; Ta v0-4-12, d0, p0-5-9, r0-0-4. **Spermathecae:** Represented by two seminal receptacles strongly fused to base, as long as wide, with short ducts. Spermathecae V-shaped, with two divergent receptacles. Pore field reaching base, distribution assymetrical (Fig. 181 D).

VARIATION.

FEMALES (n=2): **Eyes: Diameters:** PME 0.24–0.32, PLE 0.36–0.4, ALE 0.24–0.4, AME 0.2–0.48; MOQ: Length 1.2–1.32, front width 3.16–3.28, back width 3.2–3.24; **Interdistances:** PME–PME 1.84–1.88, PLE–PME 0.16, AME–AME 0.28–0.32, ALE–AME 0.96–1.08, ALE–PLE 0.64–0.72, AME–PME 0.68–0.72. **Ocular area:** OAL 5.75–5.85, OAW 3.87–4.12, and IF 2.75–3.12. **Body:** Total length: 18–19.62; Carapace: long 7–7.5; wide 6.87–7.25; Clypeus: 0.5; Fovea: 3.37–3.62; Labium: long 1.87–2; wide 1.62; Chelicera: long 2.87–4.12; wide 2.37–2.5; Sternum: long 5–5.62; wide 4.12–4.37; Abdomen: long 9.62–11; wide 7.37–10.37. **Leg measurements:** I: Fe

4.12–4.25/ Pa 2.75–2.87/ Ti 1.87–2/ Me 2.12–2.5/ Ta 0.87–1.37/ total 12.12–12.62. II: 4.25–4.37/ 2.87–3/ 1.87/ 2.5–2.75/ 0.87–1.12/ 12.62–12.87. III: 4–4.12/ 3.25–3.37/ 1.12–1.37/ 2.62/ 1/ 12.25. IV: 5.12–5.25/ 3.5–3.75/ 2.87–3.12/ 2.75–3.75/ 1.25–1.62/ 15.87–17.12. Formula 4123.

Examined material. PANAMA: *Panama City*: Ancón, [9° 03' 10.14" N 79° 36' 59.48" W], Canal Zone, 1♂, iii.1960, W. M. Lundy leg. (AMNH).

Distribution. PANAMA. Panama: Veraguas, and Ancón (Map 11).

Actinopus lomalinda new species

Figs 182–186, Map 11

Type material. Holotype. Male from 03° 18' N 73° 22' W, 300m, Lomalinda, Puerto Lleras, Meta, Colômbia, B. T. Carrol leg. (CASENT 9046026). **Paratypes:** COLOMBIA: *Meta*: Puerto Lleras, Lomalinda, 300m, 03° 18' N 73° 22' W, 1♂, iv.1987, B. T. Carrol leg. (CASENT 9020955); 1♂2J, 15.iv.1986, B. T. Carrol leg. (CASENT 9048526); 2♂, ii.1987, B. T. Carrol leg. (CASENT 9020954); iii.1987, B. T. Carrol leg. (CASENT 9046028); 4♂1♀, 17.iii.1984, B. T. Carrol leg. (CASENT 9020953); 8♂4J, 10.ii.1987, B. T. Carrol leg. (CASENT 9020959). BRITISH GUIANA: Potaro River, Tumatumari, [05° 15' N 59° 08' W], 1♀, 29.vi.1927 (AMNH); *Bartica District*: Cuyuni-Mazaruni (Region 7), Kartabo Village, [06° 27' N 60° 12' W], 1♂ 1924 (AMNH).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus lomalinda* differ from all other species of the genus by the apical tegular process of 3/4 the size of the embolus and tegulum without prolaterals apophysis in dorsal view. *A. robustus*, *A. elpalmerenses*, *A. cucutaensis* and *A. guajara* shared with *A. lomalinda* those ATP, but only in *A. cucutaensis*, *A. lomalinda* and *A. guajara* those ATP appears separated and parallel to the embolus in prolateral view. Differ from *A. cucutaensis* by the ATP angle of insertion on tegulum and in the presence of a small-serrated area, which occupies only 20% of the length of the embolus, in dorsal view (Fig. 186 A–C). Females differ from all other species, except *A.*

obidos by a spermathecae with a unique receptacle. Differs from *A. obidos* by absence of swelling on external lateral of receptacle (Fig. 186 D).

MALE (CASENT 9046026): Total length 17.38; Carapace, long 6.125; wide 5.625. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 182 B). With five short bristles between AME–clypeus. Without bristles between ALE–ALP and many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 182 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 182 E–F). Chelicera with nine denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with five megateeth and one denticle between the three distal and two basal megateeth (Fig. 182 D). Patella and tibia III with distal crown of well developed thorns, on patella III interrupted in the middle and on tibia III not interrupted in the middle (Fig. 183 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 183 A, C). Tibia IV without spines on prolateral surface (Fig. 183 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; In tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale gray (Fig. 182 A). **Eyes: Diameters:** PME 0.2, PLE 0.24, ALE 0.44, AME 0.32; **MOQ:** Length 1.04, front width 2.4, back width 2.28; **Interdistances:** PME–PME 1.44, PLE–PME 0.08, AME–AME 0.16, ALE–AME 0.48, ALE–PLE 0.48, AME–PME 0.44. **Ocular area:** OAL 4, OAW 3.5, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 2.375; Labium: long 1.5; wide 1; Chelicera: long 2.625; wide 1.75; Sternum: long 3.75; wide 3; Abdomen: long 8.5; wide 6.25. **Leg measurements:** I: Fe 6.75/ Pa 2.875/ Ti 4.25/ Me 4.75/ Ta 2.625/ total 21.25. II: 6.5/ 2.75/ 4/ 5/ 2.5/ 20.75. III: 5/ 2.875/ 3.25/ 5.625/ 3/ 19.75. IV: 7/ 3.125/ 5.625/ 6.25/ 3.125/ 25.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-4, d0, p0-0-1, r0-0-2; Me v1-4-4, d0, p0-3-2, r1-2-2; Ta v1-2-2, d0, p1-2-2, r0-2-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-4-3, d0, p0, r0-5-4; Me v4-4-3, d0, p1-2-1, r0-2-3; Ta v1-2-3, d0, p3-4-6, r1-3-6. III – Fe v0, d0, p0, r0; Pa v0, d7-18-25, p0-0-2, r0-0-4; Ti v0-0-6, d1-0-16, p0-0-2, r0-2-4; Me v3-5-6, d0-1-2, p1-2-3, r1-2-6; Ta v0, d0, p0-3-4, r2-12-4; IV – Fe v0, d0, p0, r0; Pa v0, d28-8-5, p0, r0; Ti v0-0-2, d0, p0, r0; Me v2-4-3, d0, p0-2-3, r0-0-1; Ta v0, d0, p1-6-7, r1-6-6. **Palp:** PA well developed. Embolus without

keels. ATP nearly 3/4 the size of the embolus. BTA poorly developed; prolateral surface of tegulum with three cusps next the embolus base, embolus inserted at 20° angle on the basal portion of the copulatory bulb; embolar bases thin (Figs. 186 A–C).

FEMALE (CASENT 9020953): Total length 19.5; Carapace, long 7.25; wide 6.875. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 184 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 184 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 184 E–F). Chelicera with 13 denticles along the prolateral row of teeth. Prolateral row of teeth with eight megateeth and one teeth, basal to megateeth. Retrolateral row of teeth with five megateeth and two teeth between three basal megateeth (Fig. 184 D). Patella III with distal interrupted crown of thorns and tibiae III with distal developed crown of thorns (Fig. 185 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 185 C). Tibia IV without spines (Fig. 185 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palp redish brown; Abdomen pale brown with a big basal portion of depigmented area in dorsal view (Fig. 184 A). 11 labial cuspules, 87 in right maxilla and 89 in left. **Eyes:** **Diameters:** PME 0.24, PLE 0.36, ALE 0.4, AME 0.24; MOQ: Length 1.2, front width 3.16, back width 3.12; **Interdistances:** PME–PME 1.92, PLE–PME 0.16, AME–AME 0.36, ALE–AME 0.92, ALE–PLE 0.6, AME–PME 0.72. **Ocular area:** OAL 5.75, OAW 3.875, and IF 2.5. **Body:** Clypeus: 0.375; Fovea: 3.125; Labium: long 1.625; wide 1.375; Chelicera: long 3.875; wide 2.75; Sternum: long 4.75; wide 3.75; Abdomen: long 11; wide 6.875. **Leg measurements:** I: Fe 3.375/ Pa 2.75/ Ti 1.75/ Me 1.75/ Ta 0.875/ total 10.5. II: 3.5/ 2.75/ 1.875/ 1.875/ 0.875/ 10.875. III: 3.5/ 2.875/ 1.5/ 1.75/ 0.875/ 10.5. IV: 4.25/ 3.25/ 2.875/ 3/ 1/ 14.375. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-1, d0, p1-1-4, r6-7-11; Me v2-1-2, d0, p4-4-3, r6-9-4; Ta v0-0-2, d0, p3-4-2, r5-3-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-1, d0, p0, r17-22-26; Me v2-1-3, d0, p4-5-4, r5-8-6; Ta v0-2-3, d0, p3-4-4, r3-0-0. III – Fe v0, d0, p0, r0; Pa v0, d0-0-30, p0-0-6, r0-1-26; Ti v0, d1-0-15, p0-0-2, r8-14-13; Me v0-0-6, d10-7-3, p0, r9-10-13; Ta v20-21-11, d0-0-4, p0-0-4, r5-12-6; IV – Fe v0, d0,

p0, r0; Pa v0, d14-14-7, p0, r0; Ti v0, d0, p0, r0; Me v0-0-3, d0, p0-1-3, r0; Ta v12-16-14, d0, p0-7-10, r0-0-4. **Spermathecae:** Represented by a single bilobed seminal receptacle strongly fused to base, longer than wide, with short duct. Left lobe in dorsal view thinner than right lobe. Pore field reaching base medially; basal lateral areas of receptacle devoid of pores. Lateral swelling absent (Fig. 186 D).

Distribution. COLOMBIA. Meta: Puerto Lleras. BRITISH GUIANA. Tumatumaru; and Bartica District: Cuyuni-Mazaruni (Map 11).

Actinopus palmar new species

Figs 187–189, Map 11

Type material. Holotype. Male from [58° 19' 21" S 31° 51' 11" W], Parque Nacional El Palmar, Entre Ríos, Argentina, 12–16.ii.1980, Grosson & P. A. Goloboff leg. (MACN 19826). **Paratype:** ARGENTINA: Entre Ríos, Parque Nacional El Palmar, [58° 19' 21" S 31° 51' 11" W], 1♂, iii.1995, C. J. Grismado leg. (MACN 19839).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus palmar* differ from all other species of the group *cucutaensis* by the narrow ATP base, copulatory bulb with three prolateral keels on prolaterodorsal view and ATP with a big serrated area (Fig. 189 A–C). Additionally, they differ from those of all other species of *Actinopus*, except *A. crassipes*, *A. dubiomaculatus*, *A. pusillus*, *A. emas*, *A. bocaina*, *A. laventana* and *A. calamuchita*, by the distal leg articles paler than proximal leg articles and palp.

MALE (MACN 19826): Total length 8.625; Carapace, long 4.3; wide 3.6. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 187 B). One bristle between AME–clipeus and the same between ALE–PLE. Sternum with eight sigillae near the center and two distal sigillae very fused to each other (Fig. 187 C). Rastellum protuberant, inverted V-shaped, hirsute, with many spines in apex (Fig. 189 D–E). Chelicera with denticles along the prolateral row of teeth (Fig. 187 D). Patella III and tibia III with distal crown of well-developed thorns (Fig. 188 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 188 A, C). Patella IV without spines on dorsal surface (Fig. 188 D). Ventral pseudoscapulae occupying 30% of the

length of tarsi I, 50% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicera redish brown, sternum yellowish brown, coxae, trochantera, femura and patellae redish brown, Tibia, metatarsi and tarsi yellowish brown, abdomen pale gray (Fig. 187 A). **Eyes: Diameters:** PME 0.15 PLE 0.18 ALE 0.28, AME 0.21; MOQ: Length 0.68, front width 1.78, back width 1.5; **Interdistances:** PME–PME 0.90, PLE–PME 0.12, AME–AME 0.09, ALE–AME 0.65, ALE–PLE 0.34, AME–PME 0.25. **Ocular area:** OAL 2.53, OAW 2.62, and IF 1.4. **Body:** Clypeus: 0.15; Fovea: 1.3; Labium: long 0.85; wide 0.75; Chelicera: long 2.43; wide 1.18; Sternum: long 2.8; wide 2.1; Abdomen: long 4.56; wide 3.5. **Leg measurements:** I: Fe 3.62/ Pa 1.62/ Ti 2.12/ Me 3.25/ Ta 1.75/ total 12.37. II: 4/ 1.75/ 2.5/ 2.87/ 1.87/ 13. III: 3/ 2.37/ 1.75/ 3/ 2.125/ 12.25. IV: 4.12/ 1.37/ 3.25/ 3.12/ 2.37/ 14.25. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v5-6-8, d0, p0, r0; Me v5-14-11, d0, p1-0-2, r0; Ta v6-10-9, d0, p0-0-2, r1-3-4. II – Fe v0, d0, p0, r0; Pa v0-0-2, d0, p0, r0; Ti v4-4-6, d0, p0-0-1, r4-8-6; Me v5-5-8, d0, p0-0-2, r2-2-4; Ta v7-11-13, d0, p0-0-1, r3-3-7. III – Fe v0, d1-4-3, p0, r0; Pa v0-0-2, d5-3-14, p2-0-3, r0-0-2; Ti v0-0-2, d1-0-9, p0-0-3, r0-0-2; Me v0-0-3, d1-3-0, p0-2-1, r0-1-2; Ta v0, d0, p1-2-7, r0-2-5; IV – Fe v0, d0, p0, r0; Pa v0, d16-16-8, p0-1-1, r0; Ti v0-0-2, d0, p0-0-1, r0; Me v0-0-2, d0, p0-2-3, r0; Ta v0, d0, p2-6-7, r0-1-2. **Palp:** PA well-developed embolus with three keels (Pa, PI and PS). ATP nearly 1/2 the size of embolus. BTA developed; serrated areae large, from next the embolus base to middle of embolus; embolus inserted at 80°; embolar base thin (Fig. 189 A–C).

VARIATION.

MALES (n=2): **Eyes: Diameters:** PME 0.12–0.15, PLE 0.15–0.18, ALE 0.28–0.31, AME 0.12–0.21; MOQ: Length 0.62–0.68, front width 1.68–1.78, back width 1.5–1.56; **Interdistances:** PME–PME 0.84–0.90, PLE–PME 0.09–0.12, AME–AME 0.09–0.15, ALE–AME 0.59–0.65, ALE–PLE 0.28–0.34, AME–PME 0.25–0.28. **Ocular area:** OAL 2.5–2.53, OAW 2.12–2.62, and IF 1.12–1.4. **Body:** Total length: 6.75–8.62; Carapace: long 3.62–4.3; wide 3.25–3.6; Clypeus: 0.12–0.15; Fovea: 1.30–1.40; Labium: long 0.84–0.85; wide 0.75–0.76; Chelicera: long 1.56–2.43; wide 1.03–1.18; Sternum: long 2.24–2.8; wide 2–2.1; Abdomen: long 3.62–4.56; wide 2.75–3.5. **Leg measurements:** I: Fe 3,62–4/ Pa 1,37–1,62/ Ti 2,12–2,37/ Me 2,87–3,25/ Ta 1,75–1,87/ total 12,37–12,5. II: 3.75–4/ 1.12–1.75/ 2.12–2.5/ 2.87/ 1.75–1.87/ 11.62–13. III: 2.75–

3/ 1.5–2.37/ 1.25–1.75/ 2.5–3/ 2–2.12/ 10–12.25. IV: 3.62–4.12/ 1.37–1.62/ 2.75–3.25/ 3–3.12/ 2.25–2.37/ 13.25–14.25. Formula 4123.

Distribution. ARGENTINA. Entre Ríos (Map 11).

***Actinopus guajara* new species**

Figs 190–192, Map 11

Type material. Holotype. Male from [10° 47' 27.33" S 65° 19' 55.98" W], Guajará-Mirim, Rondônia, Brazil, i.2001, M. Carvalho leg. (IBSP 114463).

Diagnosis. Males of *Actinopus guajara* are similar to those of *A. cucutaensis* and *A. lomalinda* by the ATP parallel to the embolus in prolateral view. They differ from those of both these species by longer tegulum, and by the slender, less robust ATP (Fig. 192 A–C).

Etymology. The specific name is an adjective derived from the type locality name.

MALE (Holotype): Total length 7.9; Carapace, long 4; wide 3.7. Carapace anterior part rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 190 B). With four bristles between AME–clypeus. One long bristle between ALE–ALP and 14 short and weak bristles between PE–fovea. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 190 C). Rastellum protuberant, inverted V-shaped, hirsute, with strong widespread spines in apice (Fig. 192 D–E). Chelicera with four denticles along the prolateral row of teeth and one denticle along the retrolateral row of teeth. Prolateral row of teeth with five megateeth. Retrolateral row of teeth with six megateeth (Fig. 190 D). Patella and tibia III with distal crown of well-developed thorns, interrupted in the middle on patella III and not interrupted in the middle on tibia III (Fig. 191 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 191 A, C). Tibia IV without spines on prolateral surface (Fig. 191 D). Ventral pseudoscapulae occupying 20% of the length of tarsus I, 40% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; on tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae tibiae, metatarsi and tarsi pale brown; Abdomen pale gray (Fig. 190 A). **Eyes:** **Diameters:** PME 0.24, PLE 0.28, ALE 0.36, AME 0.28; MOQ: Length 0.76, front

width 1.8, back width 1.76; **Interdistances:** PME–PME 1, PLE–PME 0.04, AME–AME 0.16, ALE–AME 0.4, ALE–PLE 0.32, AME–PME 0.28. **Ocular area:** OAL 2.88, OAW 2.32, and IF 0.44. **Body:** Clypeus: 0.12; Fovea: 1.6; Labium: long 0.9; wide 0.8; Chelicera: long 1.9; wide 1.2; Sternum: long 2.8; wide 2.2; Abdomen: long 3.5; wide 2.8. **Leg measurements:** I: Fe 3.875/ Pa 1.75/ Ti 2.625/ Me 3.125/ Ta 1.75/ total 13.125. II: 4.25/ 1.75/ 2.75/ 3.25/ 1.875/ 13.875. III: 3.375/ 1.75/ 2.125/ 3.75/ 1.875/ 12.875. IV: 4.5/ 2.125/ 4/ 4.125/ 1.125/ 15.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-2-4, d0, p0, r2-2-4; Me v4-8-5, d0, p0-0-2, r2-4-7; Ta v4-2-2, d0, p2-2-2, r4-4-10. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-5-6, d0, p0-0-1, r1-6-7; Me v3-7-7, d0, p0-0-1, r2-6-5; Ta v4-3-2, d0, p1-3-2, r2-4-6. III – Fe v0, d0, p0, r0; Pa v0, d2-10-30, p0, r0-0-2; Ti v1-1-2, d1-0-17, p0-0-4, r0-0-6; Me v0-7-8, d4-5-5, p1-2-3, r2-4-4; Ta v0, d0-0-2, p1-1-5, r1-2-3; IV – Fe v0, d0, p0, r0; Pa v0, d12-7-4, p0, r0; Ti v2-1-5, d0, p1-1-0, r0; Me v2-3-6, d0, p0-1-0, r0-1-1; Ta v0, d0, p0-1-5, r0-1-1. **Palp:** PA poor developed, embolus without prolateral keels. Basal surface of tegulum smooth; BTA small but visible in prolateral and retrolateral views, displaced ventrally on prolateral tegular surface; prolateral surface of embolus with denticles along base. ATP nearly 75% of embolus length; Embolar base thin (Fig. 192 A–C).

Distribution. BRAZIL. Rondônia: Guajará-Mirim (Map 11).

Actinopus concinnus new species

Figs 193–195, Map 11

Type material. Holotype. Male from forested ravine in woodland, FIT 87–36, Puente Cocoizas, 70km WC Bolivar, [6° 21' N 63° 34' W], Bolivar, Venezuela, 19.VI–3.viii.1987, S&J Peck leg. (AMNH). **Paratype:** VENEZUELA: Caracas, [10° 29' 00" N 66° 55' 00" W]: San Jose del Avila, 1♂, 1940, Padre C. Vogl leg. (AMNH).

Etymology. The specific name is a Latin adjective meaning bizarre, referring to the odd apical tegular process in this species, protruding from the tegulum in a unique way.

Diagnosis. Males of *Actinopus concinnus* resembles those of *A. tarsalis*, *A. castelo* and *A. jamari* by absence of BTA, and those of the group *cucutaensis* by the presence of an apical tegular process (ATP). Differ from all species in the genus by the ATP inserted

obliquely in relation to embolus, with many cuspules covering the ATP surface (Fig. 195 A–C).

MALE (Holotype): Total length 11; Carapace, long 5; wide 5.87. Carapace anterior part tapering. Anterior eye row slightly procurved, posterior row recurve (Fig. 193 B). With many short bristles between AME–clipeus and one long bristle ALE–PLE. Many short bristles between posterior–fovea and some between lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more demarcated than others (Fig. 193 C). Rastellum protuberant, inverted V-shaped, hirsute, with few widespread spines in apex (Fig. 195 D–E). Chelicera with denticles along the prolateral row of teeth and one denticle after the last basal tooth. With seven teeth on prolateral row and seven on retrolateral too (Fig. 193 D). Patella and tibia III with distal crown of well developed thorns (Fig. 194 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 194 A, C). Tibia IV without spines on dorsal surface of article (Fig. 194 D). Without ventral pseudoscopulae in Tarsi I, ventral pseudoscopulae occupying 10% of length of tarsi I, 30% of II and 100% of III and IV. Pseudoscopula of tarsi I and II with setae spaced, forming diffuse group of bristles, on tarsi III and IV, compact. Carapace, chelicera, sternum, coxae, trochantera, femura, patellae, tibia, metatarsi and tarsi of legs reddish brown; Abdomen gray (Fig. 193 A). **Eyes: Diameters:** PME 0.2, PLE 0.24, ALE 0.32, AME 0.36; **MOQ:** Length 0.76, front width 2, back width 1.88; **Interdistances:** PME–PME 1.08, PLE–PME 0.04, AME–AME 0.08, ALE–AME 0.36, ALE–PLE 0.32, AME–PME 0.28. **Ocular area:** OAL 3.36, OAW 2.88, and IF 2.25. **Body:** Clypeus: 0.125; Fovea: 1.875; Labium: long 1.25; wide 0.875; Chelicera: long 2.25; wide 1.25; Sternum: long 3; wide 2.5; Abdomen: long 6; wide 4.125. **Leg measurements:** I: Fe 5/ Pa 2.12/ Ti 3.12/ Me 3.75/ Ta 2.25/ total 16.25. II: 5/ 2.125/ 3.25/ 4/ 2.5/ 16.875. III: 4.25/ 2.25/ 2.75/ 5/ 2.875/ 17.125. IV: 6/ 2.375/ 4.25/ 5.375/ 3/ 21. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v3-3-5, d0, p0, r0; Me v3-6-4, d0, p1-2-2, r1-3-2; Ta v0-1-4, d0, p0-2-2, r2-2-2. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-3-5, d0, p0-1-1, r0; Me v3-8-7, d0, p1-0-0, r0-0-2; Ta v0-0-1, d0, p1-2-2, r3-3-6. III – Fe v0, d0, p0, r0; Pa v0-0-1, d14-20-28, p0-0-2, r0; Ti v3-2-4, d1-1-15, p0-1-3, r0-0-3; Me v1-10-6, d2-0-1, p1-1-1, r1-2-4; Ta v1-10-6, d0, p0-1-3, r1-7-3; IV – Fe v0, d0, p0, r0; Pa v0, d24-15-9, p2-2-2, r0; Ti v2-2-4, d0, p1-1-0, r0; Me v1-5-6, d0, p1-2-1, r0-0-1; Ta v0, d0, p0-5-5, r0-4-5. **Palp:** PA well developed, isolated from any keel. Embolus without keels. Without BTA; inferior surface of tegulum and embolus with

extensive serrated area; very large, conspicuous ATP located between PA and embolus base; embolar base thin (Fig. 195 A–C).

VARIATION.

MALES (n=10): **Eyes:** **Diameters:** PME 0.16 ± 0.2 , PLE 0.2 ± 0.24 , ALE 0.32 ± 0.36 , AME 0.36; MOQ: Length 0.76 ± 0.84 , front width 2, back width 1.84 ± 1.88 ; **Interdistances:** PME–PME 1.08–1.12, PLE–PME 0.04–0.08, AME–AME 0.08–0.16, ALE–AME 0.36–0.44, ALE–PLE 0.32–0.48, AME–PME 0.28–0.32. **Ocular area:** OAL 3–3.36, OAW 2.6–2.88, and IF 2.25. **Body:** Total length: 8.87–11; Carapace: long 4.5–5; wide 4.5–5.87; Clypeus: 0.12; Fovea: 1.12–1.87; Labium: long 1.12–1.25; wide 0.87–0.87; Chelicera: long 1.87–2.25; wide 1.25; Sternum: long 2.87–3; wide 2.5; Abdomen: long 4.37–6; wide 4–4.12. **Leg measurements:** I: Fe 5–5.12/ Pa 2–2.12/ Ti 3.12–3.62/ Me 3.75/ Ta 2.25/ total 16.25–16.75. II: 4.87–5/ 1.87–2.12/ 3.25–3.5/ 4–4.12/ 2.37–2.5/ 16.75–16.87. III: 4.25/ 2.12–2.25/ 2.5–2.75/ 4.25–5/ 2.75–2.87/ 15.87–17.12. IV: 4.62–6/ 2.37/ 4.25–5/ 5.37/ 2.12–3/ 19.5–21. Formula 4123.

Distribution. VENEZUELA. Bolivar; and Caracas: San Jose del Avila (Map 11).

Ungrouped Species

Actinopus jamari new species

Figs 196–198, Map 12

Type material. Holotype. Male from [09° 04' S 63° 06' W], Floresta Nacional do Jamarí, Porto Velho, Rondônia, Brazil, F. Terrassini & S. Albuquerque leg. (IBSP).

Paratypes: BRASIL: *Mato Grosso:* Aripuanã, [10° 10' S 59° 27' W], 1♂, 22.viii–02.ix.1997, G. Skuk leg. (MZSP 18054); Sapezal, [13° 32' S 58° 50' W], Usina Hidroelétrica de Sapezal, 4♂, 2007, F. D. de Godoy leg. (IBSP 113754).

Etymology. The specific name refers to the type locality, Floresta Nacional do Jamarí, Porto Velho, Rondônia, Brazil.

Diagnosis. Males of *Actinopus jamari* resemble those of *A. tarsalis*, *A. castelo* and *A. concinnus* by the absence of BTA, but are readily recognized by the large PA with a

keel inserted apically on bulbus, flattened and apically folded, oblique in relation to embolus (Fig. 198 A–C).

MALE (IBSP): Total length 20.25; Carapace, long 11.5; wide 10.875. Carapace anterior part tapering and posterior part triangular. Anterior eye row slightly procurved, posterior row recurve (Fig. 196 B). With few short bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 196 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 196 E–F). Chelicera with 15 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and two basal tooth. Retrolateral row of teeth with five megateeth, two basal teeth between three basal megateeth and three denticles along the two basal megateeth (Fig. 196 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 197 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 197 A, C). Tibia IV without spines on dorsal surface (Fig. 197 D). Ventral pseudoscapulae occupying 30% of the length of tarsus I, 40% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish-dark-brown; Abdomen pale gray with small orange spots of depigmentation on dorsal surface (Fig. 196 A). **Eyes: Diameters:** PME 0.25, PLE 0.5, ALE 0.75, AME 0.625; **MOQ:** Length 1.25, front width 4.625, back width 4.375; **Interdistances:** PME–PME 2.75, PLE–PME 0.125, AME–AME 0.125, ALE–AME 1.25, ALE–PLE 0.875, AME–PME 1. **Ocular area:** OAL 7.5, OAW 6.5, and IF 3.125. **Body:** Clypeus: 0.375; Fovea: 4.125; Labium: long 2.375; wide 1.875; Chelicera: long 4.375; wide 3.125; Sternum: long 6.75; wide 6.25; Abdomen: long 9.375; wide 7.625. **Leg measurements:** I: Fe 11/ Pa 5.25/ Ti 6.5/ Me 6.875/ Ta 4.375/ total 34. II: 11/ 5.125/ 6.875/ 7.75/ 4.5/ 35.25. III: 9.375/ 6/ 5.375/ 10.625/ 5.125/ 36.5. IV: 12.625/ 6.125/ 9.75/ 11.375/ 5.75/ 45.625. **Formula** 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v1-0-4, d0, p0, r0-0-4; Ta v0-3-3, d0, p0, r1-3-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-4, d0, p0-0-1, r0; Me v1-4-4, d0, p0-3-5, r0; Ta v1-2-2, d0, p2-5-5, r1-2-4. III – Fe v0, d0, p0, r0; Pa v0, d5-15-28, p0, r0; Ti v0, d1-0-12, p0-1-2, r0-2-3; Me v1-1-4, d0-0-3, p1-3-3, r2-7-6; Ta v0, d0, p1-5-4, r3-3-5; IV – Fe v0, d0, p0, r0; Pa v0, d28-8-5, p0, r0; Ti v0-0-2, d0, p0, r0; Me v1-3-11, d0, p1-6-8, r0-0-2; Ta v0, d0, p1-

6-7, r3-7-7. **Palp:** PA conspicuous, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface and away from tegular border. Embolus with two keels (PI and PS). BTA developed and displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Serrated area represented by three rows of big notable cusps below PA on prolateral view; PA continuous to PS; Embolar base flattened, PI rotating the length of embolus from base to apice; several grooves covering prolateral tegular surface (Fig. 198 A–C).

Distribution. BRAZIL. Rondônia: Porto Velho; Mato Grosso: Aripuanã, and Sapezal (Map 12).

***Actinopus apiacas* new species**

Figs 199–201, Map 13

Type material. Holotype. Male from [09° 32' 39.98" S 57° 27' 03.83" W], Apiacás, Mato Grosso, Brazil, ii.1997, M. Calletto leg. (IBSP 110503). **Paratypes:** BRAZIL. Mato Grosso: Apiacás, [09° 32' 39.98" S 57° 27' 03.83" W], 2♂, ii.1997, M. Calletto leg. (IBSP 110503).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus apiacas* resemble *A. paranensis* and *A. hirsutus* by hirsute legs. Differ from all species of the genus by the PA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface and secluded from prolateral tegular border; embolar serrated area extremely developed, represented by three rows of large cusps (Fig. 201 A–C).

MALE (IBSP 1105003): Total length 20; Carapace, long 9; wide 8.75. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 199 B). With one long bristle between AME–clypeus and a row of short and weak bristles on border of clypeus. With one long bristle between ALE–ALP and many short and weak bristles between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 199 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 199 E–F). Chelicera with 25 denticles along the prolateral row of teeth. Prolateral row of teeth

with seven megateeth and two basal teeth. Retrolateral row of teeth with six megateeth and two basal teeth (Fig. 199 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 200 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 200 A, C). Tibia IV without spines on dorsal surface (Fig. 200 D). Legs and body, hirsute, with many long bristles. Ventral pseudoscapulae occupying 20% of the length of tarsus I, 60% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace and chelicerae dark brown; Sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi reddish brown; Abdomen pale gray, with many spots of depigmentation on dorsal surface and many long bristles (Fig. 199 A). **Eyes:** **Diameters:** PME 0.25, PLE 0.333, ALE 0.5, AME 0.583; MOQ: Length 1.583, front width 3.416, back width 3.333; **Interdistances:** PME–PME 2.166, PLE–PME 0.166, AME–AME 0.333, ALE–AME 0.666, ALE–PLE 0.833, AME–PME 0.583. **Ocular area:** OAL 6.25, OAW 5.625, and IF 3.875. **Body:** Clypeus: 0.375; Fovea: 3.125; Labium: long 2.12; wide 2.2; Chelicera: long 4.375; wide 2.75; Sternum: long 5.87; wide 5.87; Abdomen: long 9; wide 6.75. **Leg measurements:** I: Fe 10.25/ Pa 4/ Ti 6/ Me 7.25/ Ta 4.125/ total 31.625. II: 10/ 4.125/ 6.125/ 6.5/ 4.125 /30.875. III: 7.5/ 4/ 5/ 8.5/ 3.875/ 28.875. IV: 10/ 3.875/ 8.125/ 8.5/ 4.625/ 35.125. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0, r0; Me v1-2-1, d0, p0, r0; Ta v0, d0, p0-1-1, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-0-6, d1-0-16, p0, r0; Me v3-5-6, d0, p0-0-2, r0; Ta v0-0-3, d0, p1-2-5, r0; III – Fe v0, d0, p0, r0; Pa v0, d8-13-31, p0, r0-0-1; Ti v0, d1-0-14, p0-0-1, r0-0-2; Me v0-0-2, d0, p1-2-7, r0-1-7; Ta v0, d0, p2-4-5, r2-4-3. IV – Fe v0, d0, p0, r0; Pa v0, d8-8-4, p0, r0; Ti v0, d0, p0, r0; Me v0, d0, p0, r0; Ta v0, d0, p0-3-4, r0-0-10. **Palp:** PA conspicuous, displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface and away from tegular border. Embolus with two keels (PI and PS). BTA developed and displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Serrated area represented by three rows of big notable cusps below PA on prolateral view; PA continuous to PS; Embolar base flattened, large, PI rotating the length of embolus from base to apice; several grooves covering prolateral tegular surface, distal third of embolus with a prolateral lamellae (Fig. 201 A–C).

Distribution. BRAZIL. Sergipe: Canindé de São Francisco; Mato Grosso: Apiacás (Map 13).

Examined material (burned in fire). BRAZIL. Sergipe: Rio São Francisco, Canindé de São Francisco, Usina Hidroelétrica Xingó, 09° 37' 34" S 37° 45' 22" W, 1♂, 16.ii.2000 (IBSP 114465).

***Actinopus panguana* new species**

Figs 202–206, Map 14

Type material. Holotype. Male from 09° 37' S 74° 06' W, Estación Biológica, Rio Yuyapichis, Panguana, Huánuco, Peru, 24.xi–21.i.1984, H. Hofer leg. (IBSP 113689).

Paratypes: PERU: Amazonas: [05° 30' S 78° 32' W], Rio Marañón, 1km downstream from Pongo de Requena, 2♀ 2J, 26.xii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Cajamarca: [05° 47' S 79° 25' W], El Limón, Km 90 A, Rd. Olmos-Pucará, 1150m, 2♀, 20.xii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); [06° 00' S 78° 57' W], Km 170, Rd. Olmos-Bagua, 2km S Puente Zonanga, 2♀, 26.xii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Km 72, Puente Zonanga, Rd. Olmos-Bagua, 650m, 3♀, 21.xii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Lambayeque: [05° 47' S 79° 25' W], Km 26, Rd. Olmos-Pucará, 1100m, 3♀, 20.vii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Alvarado, [06° 00' S 78° 57' W], Km 110, Rd. Olmos-Bagua, 1♀, 27.xii.1990, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Huánuco: Panguana, Estación Biológica, Rio Yuyapichis, 09° 37' S 74° 06' W, 1♂, 24.xi–21.i.1984, H. Hofer leg. (IBSP 113687, 113690).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. PA conspicuous and prolaterally bended. Embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; Serrated area absent; PA continuous to PS; Dorsal tegular process on dorsal tegular surface, conspicuous on prolateral view (DTP). Embolus inserted on oblique orientation on ventral view and embolar base elongated and thin (Fig. 206 A–C).

MALE (IBSP 113689): Total length 9.125; Carapace, long 4.5; wide 4.125. Carapace rounded. Anterior eye row slightly procurved, posterior row recurve (Fig. 202 B). With few, short and sparse bristles between AME–clypeus, between ALE–ALP, between

posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae fused in the middle, two distal sigillae more fused than others (Fig. 202 C). Rastellum protuberant, inverted V-shaped, hirsute, without spines in apice (Fig. 202 E–F). Chelicera with eleven denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with seven megateeth and one denticle between the two basal megateeth (Fig. 202 D). Patella and tibia III with distal crown of well-developed thorns, interrupted in the middle (Fig. 203 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 203 A, C). Tibia IV without spines on dorsal surface (Fig. 203 D). Ventral pseudoscapulae occupying 40% of the length of tarsus I, 60% of II and 100% of III and IV. Pseudoscapula of tarsi I and II with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale brown (Fig. 202 A). **Eyes: Diameters:** PME 0.16, PLE 0.28, ALE 0.32, AME 0.36; **MOQ:** Length 0.52, front width 1.84, back width 1.76; **Interdistances:** PME–PME 1.12, PLE–PME 0.04, AME–AME 0.08, ALE–AME 0.24, ALE–PLE 0.24, AME–PME 0.2. **Ocular area:** OAL 2.875, OAW 2.625, and IF 1.375. **Body:** Clypeus: 0.125; Fovea: 1.625; Labium: long 0.875; wide 0.75; Chelicera: long 1.25; wide 1.125; Sternum: long 2.75; wide 2.125; Abdomen: long 4.25; wide 4.25. **Leg measurements:** I: Fe 3.875/ Pa 0.125/ Ti 3/ Me 3.125/ Ta 1.875/ total 12. II: 3.75/ 1.625/ 3/ 3.375/ 2/ 13.75. III: 3.625/ 1.875/ 1.875/ 2.125/ 2/ 11.5. IV: 4.75/ 2/ 4.125/ 3.375/ 2.25/ 16.5. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-4-4, d0, p0-0-1, r0-0-2; Me v1-3-4, d0, p0-3-2, r1-2-2; Ta v1-2-2, d0, p1-2-2, r0-2-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v1-2-1, d0, p0, r0-3-12; Me v2-3-2, d0, p1-2-1, r1-5-5; Ta v1-2-3, d0, p3-4-6, r5-3-4. III – Fe v0, d0, p0, r0; Pa v0, d7-18-25, p0-0-2, r0-0-4; Ti v0-0-6, d1-0-12, p0-0-2, r0-2-4; Me v3-5-6, d0-1-2, p1-2-3, r1-2-5; Ta v0, d0, p0-3-4, r2-10-4; IV – Fe v0, d0, p0, r0; Pa v0, d25-8-5, p0, r0; Ti v0-0-2, d0, p0, r0; Me v2-4-3, d0, p0-2-3, r0-0-1; Ta v0, d0, p1-6-7, r1-4-4. **Palp:** PA conspicuous and prolaterally bended. Embolus with three keels (PAc, PI and PS). BTA developed and placed medially on prolateral tegular surface; Serrated area absent; PA continuous to PS; Dorsal tegular process, on dorsal tegular surface on prolateral view (DTP). Embolus inserted on oblique orientation on ventral view and embolar base elongated and thin (Fig. 206 A–C).

FEMALE (AMNH): Total length 20; Carapace, long 7.25; wide 6.625. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve (Fig. 204 B). Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and short bristles between lateral eyes–edge of carapace. Sternum with ten sigillae fused in the middle, all sigillae very fused to each other (Fig. 204 C). Rastellum protuberant, subquadrate, hirsute, with a row of short spines in the edge of rastellum and a lot of short spines covering the dorsal area of rastellum (Fig. 204 E–F). Chelicera with 17 denticles along the prolateral row of teeth. Prolateral row of teeth with five megateeth and one basal tooth, basal to megateeth. Retrolateral row of teeth with five megateeth and three teeth along the retrolateral row (Fig. 204 D). Patella III and tibiae III with distal developed crown of thorns (Fig. 205 A–B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 205 C). Tibia IV without spines, with long bristles along prolaterodorsal surface (Fig. 205 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi, tarsi and palps reddish brown; Abdomen pale brown (Fig. 204 A). **Eyes: Diameters:** PME 0.16, PLE 0.24, ALE 0.44, AME 0.2; **MOQ:** Length 1.08, front width 3.4, back width 2.8; **Interdistances:** PME–PME 1.68, PLE–PME 0.2, AME–AME 0.28, ALE–AME 0.96, ALE–PLE 0.72, AME–PME 0.76. **Ocular area:** OAL 6.625, OAW 7.375, and IF 2.375. **Body:** Clypeus: 0.5; Fovea: 3; Labium: long 1.75; wide 1.25; Chelicera: long 3.75; wide 2.625; Sternum: long 4.375; wide 4.125; Abdomen: long 10.75; wide 8.375. **Leg measurements:** I: Fe 3.875/ Pa 2.625/ Ti 1.875/ Me 2.375/ Ta 1.125/ total 11.875. II: 3.875/ 2.75/ 2/ 2.5/ 1.125/ 12.25. III: 3.75/ 3.125/ 1.375/ 3 / 1.375/ 12.625. IV: 5/ 3.375/ 3/ 3/ 1.375/ 15.75. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0-1-1, d0, p0, r0; Me v2-1-2, d0-0-4, p5-5-6, r0; Ta v0-0-2, d0, p3-3-3, r0. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-7-6, r6-9-5; Me v0-0-2, d0, p5-3-1, r7-4-4; Ta v0-0-5, d0, p5-3-4, r3-4-2. III – Fe v0, d0, p0, r0; Pa v0, d0-4-32, p0, r0; Ti v0, d0-5-3, p0-0-2, r14-22-23; Me v0-0-4, d9-12-9, p0, r8-1-2; Ta v12-9-1, d2-4-6, p0-0-4, r3-3-3; IV – Fe v0, d0, p0, r0; Pa v0, d19-17-9, p0, r0; Ti v0, d0, p0, r0; Me v0-, d0-0-1, p0-1-5, r0; Ta v0-4-6, d0, p1-4-3, r0-0-4. **Spermathecae:** Represented by a two seminal receptacles, divergent, with irregular apical border on each receptacle. Without sclerotized region on basal part of spermathecae. Pore distribution reaching 75% apical on each receptacle. Absence of lateral swelling (Fig. 206 D).

Distribution. PERU: Huánuco: Panguana; Amazonas; Cajamarca; Alvarado; and Lambayeque (Map 14).

Examined material (burned in fire). PERU: Huánuco: Panguana, Estación Biológica, Rio Yuyapichis, 09° 37' S 74° 06' W, 1♂, 26.xi–24.xii.1983, M. Verheagh leg. (SMNK 3554); 21.i–18.ii.1984, M. Verheagh leg. (SMNK 3552, 3553).

***Actinopus loscocos* new species**

Figs 207–209, Map 15

Type material. Holotype. Male from [30° 55'24.03" S 64° 29' 56.73" W], Los Cocos, Córdoba, Argentina, x–xi.1995, M. Rumboll leg. (MACN-Ar 19827).

Etymology. The specific name is an adjective derived from the type locality name.

Diagnosis. Males of *Actinopus loscocos* are unique in *Actinopus* by the shape of the copulatory bulb, with embolus elongated and winding along the longitudinal line of tegulum, resembling in that regard the shape of the copulatory bulb in *Missulena*. (Fig. 209 A–C); they also present the dorsal surface of ocular area and chelicerae slightly granulated (Fig. 207 B) and three spines on basal third on dorsal surface of tibia III (Fig. 208 C).

MALE (MACN-Ar 19827): Total length 12.25; Carapace, long 5.375; wide 5. Carapace rounded. Anterior eye row slightly procurved, posterior row slightly recurve (Fig. 207 B). With short and weak bristles between AME–clypeus, between ALE–ALP, between posterior eyes–fovea and lateral eyes–edge of carapace. Sternum with eight sigillae converging to the middle but separated (Fig. 207 C). Rastellum protuberant, digitiform, hirsute, with many short spines covering the apice (Fig. 207 E–F). Chelicera with twelve denticles along the prolateral row of teeth. Prolateral row of teeth with six megateeth. Retrolateral row of teeth with five megateeth and one tooth between two basal megateeth (Fig. 207 D). Patella III and tibia III with distal crown of well-developed thorns, not interrupted in the middle (Fig. 208 A–B). Patella III and IV with spines on prolaterodorsal face (Fig. 208 A, C). Tibia IV without spines on dorsal surface (Fig. 208 D). Ventral pseudoscapulae occupying 50% of the length of tarsus I, 70% of II, 20% of metatarsi IV and 100% of III and IV. Pseudoscapula of tarsi I, II and

metatarsi IV with setae spaced, forming diffuse group of bristles; On tarsi III and IV, compact. Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, tibiae, metatarsi and tarsi redish brown; Abdomen pale brown with a *scutum* covering 1/3 of anterior dorsal surface of abdomen (Fig. 207 A). **Eyes: Diameters:** PME 0.2, PLE 0.24, ALE 0.32, AME 0.2; MOQ: Length 0.8, front width 2.64, back width 2.56; **Interdistances:** PME–PME 1.4, PLE–PME 0.2, AME–AME 0.28, ALE–AME 0.8, ALE–PLE 0.44, AME–PME 0.52. **Ocular area:** OAL 3.75, OAW 3.125, and IF 1.75. **Body:** Clypeus: 0.25; Fovea: 2.25; Labium: long 1.12; wide 1.12; Chelicera: long 3.125; wide 1; Sternum: long 3.37; wide 3.12; Abdomen: long 6.5; wide 5. **Leg measurements:** I: Fe 5.625/ Pa 2.25/ Ti 3.125/ Me 3.875/ Ta 2/ total 16.875. II: 5.125/ 2.25/ 3/ 3.75/ 2/ 16.125. III: 3.875/ 2.25/ 2.375/ 3.75/ 2.125 /14.375. IV: 5/ 2.5/ 3.875/ 4.25/ 2.25/ 17.875. Formula 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v3-6-15, d0, p0-0-4, r2-2-4; Me v6-9-10, d0, p1-3-2, r1-3-3; Ta v3-6-4, d0, p0-1-3, r1-2-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v4-5-7, d0, p1-3-3, r0-0-2; Me v4-5-1, d0, p1-2-2, r1-2-3; Ta v0-4-4, d0, p1-1-2, r1-0-1. III – Fe v0, d0-4-8, p0, r0; Pa v0, d8-10-29, p3-0-11, r0-0-4; Ti v0, d3-0-11, p1-1-1, r0-2-4; Me v0-0-2, d4-7-5, p1-1-2, r1-2-2; Ta v0-0-2, d0, p1-2-3, r0-3-4; IV – Fe v0, d0, p0, r0; Pa v0, d21-23-8, p0, r0; Ti v0, d0, p0, r0; Me v0, d0-0-1, p1-0-2, r0-0-1; Ta v0, d0, p1-6-7, r1-4-3. **Palp:** PA conspicuous and continuous to surface between PS and PI. Embolus with two keels (PI and PS). BTA developed and displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface; Serrated area absent; Embolus elongated, thin, winding along the longitudinal line of tegulum (Fig. 209 A–C).

Distribution. ARGENTINA: Córdoba: Los Cocos (Map 15).

***Actinopus echinus* Mello-Leitão, 1949**

Figs 210–212, Map 16

Actinopus echinus Mello-Leitão, 1949: 1 (holotype ♀, Confluence of the river Koluene with river Xingu, Reserva Indígena do Xingu, northeast of Gaúcha do Norte, Mato Grosso, Brazil, MNRJ, lost in assault on transport truck); World Spider Catalog, 2018.

Note. The material examined can be identified as *A. echinus* by the following characters which are congruent with the original description: arrangement of cheliceral teeth, spines of rastellum and position and size of eye.

Diagnosis. Females of *A. echinus* can be identified by the following combination of characters: unilobed seminal receptacles, which are subquadrate in shape and parallel to each other (Fig. 212); PLE three times larger than PME; carapace with parallel lateral margins of cephalic region (Fig. 210 B).

FEMALE (IBSP 102907): Total length 20.86; Carapace, long 9.93; wide 10.26. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row recurve. Long and short bristles between AME–clypeus, rare and widespread on interdistances PME–PME and PLE–PLE. Short bristles between lateral eyes–edge of carapace (Fig. 210 B). Sternum with eight sigillae fused in the middle, two distal sigillae more fused to each other than others (Fig. 210 C). Rastellum protuberant, rectangular, hirsute, with many dorsal spines (Fig. 210 E–F). Prolateral row of chelicera teeth with teeth decreasing on distal–proximal way. Denticles widespread along the prolateral row of teeth (Fig. 210 D). Patella III and IV and Tibia III with distal developed crowns of thorns (Fig. 211 A–C). Patella III and IV with prolaterodorsal short spines along the extension of articule (Fig. 211 A, C). Tibia IV without spines and with long bristles on prolaterodorsal surface (Fig. 211 D). Many robust spines on the distal parts of the prolateroventral and retrolateroventral surfaces of tarsi III; and in the ventral and prolateral surfaces of tarsi IV; and prolateral and retrolateral surfaces of tarsi and metatarsi I and II. Reddish brown carapace with a diffuse orangewish region extending from the posterior area of AME to quilum (Fig. 210 B). Reddish-brown chelicera with a row of dorsal bristles disposed on a region yellowish; sternum orangewish; legs with coxae, trochanters and femora reddish-brown and the rest of articles orange; brown abdomen with a big spot of depigmented area on dorsal surface (Fig. 210 A). 58 labial cuspules, 231 in right maxilla and 165 in left. **Eyes: Diameters:** PME 0.29, PLE 0.52, ALE 0.47, AME 0.31; MOQ: Length 1.67, front width 1.45, back width 3.26; **Interdistances:** PME–PME 2.6, PLE–PME 0.22, AME–AME 0.67, ALE–AME 1.46, ALE–PLE 1.18, AME–PME 1.12. **Ocular area:** OAL 7.88, OAW 5.97, and IF 4.43. **Body:** Clypeus: 0.37; Fovea: 3.97; Labium: long 3.26; wide 2.37; Chelicera: long 5.9; wide 4.27; Sternum: long 7.42; wide 6.47; Abdomen: long 11.7; wide 8.05. **Leg measurements:** I: Fe 6.06/ Pa 4.33/ Ti 3.04/ Me 3.5/ Ta 1.61/ total 18.54. II: 6.43/ 4.39/ 2.89/ 4.1/ 2.18/ 19.99. III: 4.83/ 4.9/ 1.26/ 3.1/ 1.15/ 15.24. IV: 7.39/ 5.1/ 3.8/ 3.04/ 1.27/ 20.6. Fórmula 4123. Espinulação: I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti

v0-1-3, d0, p0-0-8, r8-29-16; Me v3-5-4, d0, p10-15-4, r6-11-7; Ta v1-0-3, d0, p5-9-4, r4-5-3. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d4-42-9, p0-0-3, r11-27-20; Me v0-3-2, d0, p9-12-6, r7-14-11; Ta v0-0-3, d0, p8-9-5, r6-7-9. III – Fe v0, d0, p0, r0; Pa v0, d0-0-35, p0, r0-0-10; Ti v0, d1-0-19, p7-9-12, r0; Me v0-0-5, d0-5-3, p0, r10-14-11; Ta v19-29-10, d0-4-2, p0-4-7, r9-15-8; IV – Fe v0, d0, p0, r0; Pa v0, d2-0-22-9, p7-10-3, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-2-1, p0-1-4, r0; Ta v8-7-12, d0-1-2, p0-5-8, r0-0-1. **Spermathecae:** Subquadrates seminal receptacles, one parallel to each other, as long as wide, with short duct. Left receptacle with sclerotized region reaching the half of the receptacle. In dorsal view, right receptacle without sclerotized area in the basal region, pores distributed assymmetrically (Fig. 212 A).

Distribution. BRAZIL. Mato Grosso; and Mato Grosso do Sul: Brilhante (Map 16).

Examined material: BRAZIL: *Mato Grosso do Sul*: Brilhante, [21° 48' 0" S 54° 32' 59.9994" W], 1 ♀, 1952, D. Mariano leg. (IBSP 102907).

Actinopus xenus Chamberlin, 1917

Figs 213–214

Actinopus xenus Chamberlin, 1917: 29 (holotype ♀, South America, MCZ 3, examined); World Spider Catalog, 2018.

Note. The redescriptions below was based on images and measurements of the holotype, taken by R. Saturnino.

Diagnosis. Females of *A. xenus* are characterized by the following combination of characters: unilobed seminal receptacles, which are subquadrate in shape and parallel to each other; apical external edge of each receptacle longer than internal edge (Fig. 214 A). Smooth corrugated area on inner surface of chelicera less evident than in *A. echinus* (Fig. 210 B).

FEMALE (Holotype): Total length 15.376; Carapace, long 9.139; wide 8.9. Carapace anterior part square and posterior part triangular. Anterior eye row procurved, posterior row slightly recurve. Many short and long bristles between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes–fovea and

short bristles between lateral eyes—edge of carapace (Fig. 213 A). Sternum with eight sigillae strongly fused in the middle (Fig. 213 B). Rastellum protuberant, digitiform, hirsute, with a row of short spines on the edge of rastellum and many short spines covering the dorsal area of rastellum (Fig. 213 D). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with four megateeth and two teeth, decreasing in distal–proximal way. Retrolateral row of teeth with five megateeth and two teeth between three basal megateeth (Fig. 213 C). Patella III with distal interrupted crown of developed thorns and tibia III with distal crown of thorns (Fig. 213 E–F). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 213 G). Tibiae IV without spines and with long bristles on prolaterodorsal surface; Metatarsus with few thorns on basal part of dorsal surface and along prolateral surface; Tarsus with thorns on prolateral and retrolateral surfaces (Fig. 213 H). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, Tarsi and palp orangewish-brown; And abdomen pale brown. **Eyes:** **Diameters:** MOQ: Length 1.51, front width 4.07, back width 3.83; **Ocular area:** OAL 8.22, OAW 5.50, and IF 3.42. **Body:** Fovea: 1.77; Abdomen: long 6.23; wide 3.97. **Leg measurements:** I: Fe 5.73. II: 3.63. III: 2.50. IV: 3.45. Formula 4123. **Spermathecae:** Subquadrates seminal receptacles, one parallel to each other, as long as wide, with short duct. Left receptacle with sclerotized region reaching the half of the receptacle. Right receptacle without sclerotized area in the basal region (Fig. 214 A).

Distribution. South America (exact location unknown).

Examined material. Only the types.

***Actinopus princeps* Chamberlin, 1917**

Figs 215–217, Map 17

Actinopus princeps Chamberlin, 1917: 31 (holotype ♀, Rio de Janeiro, Rio de Janeiro, Brazil, MCZ 5, examined); World Spider Catalog, 2018.

Note. The redescriptions below was based on images of the holotype, taken by E. H. Wienskosk and R. Saturnino.

Diagnosis. Females of *A. princeps* are recognized by the following combination of characters: bilobed receptacles, swelling laterally, with internal lobe slightly smaller than external lobe (Fig. 217 A–D); PME with the same size as PLE; carapace triangular and slightly rounded anteriorly (Fig. 215 B).

FEMALE (IBSP 114503): Total length 23.24; Carapace, long 9.21; wide 8.48. Carapace anterior part triangular and posterior part rounded. Anterior eye row procurved, posterior row recurve. Many long and short bristles between AME–clypeus, many widespread bristles in interdistances PME–PME and PLE–PLE. Short bristles between lateral eyes–edge of carapace (Fig. 215 B). Sternum with eight sigillae strongly fused in the middle (Fig. 215 C). Rastellum protuberant, rectangular, hirsute, with many short spines covering the dorsal surface of rastellum (Fig. 215 E–F). Subungual sulc with many denticles bordering the prolateral row of teeth. Teeth of prolateral row decreasing on distal–proximal way; Teeth of retrolateral row with three denticles forming a parallel row (Fig. 215 D). Patella III and tibia III with distal developed crowns of thorns (Fig. 216 A, B). Distal part of prolateral and retrolateral surfaces of patellae III with strong spines (Fig. 216 A). Tibia III with strong spines along retrolateral surface of article and patellae IV with the same spines at prolaterodorsal surface (Fig. 216 B–C). Tibia IV without spines on dorsal surface and with long bristles on prolaterodorsal surface (Fig. 216 D). Many robust spines on the ventral surface of the tarsi III and IV; And at prolateral and retrolateral surfaces of tarsi and metatarsi I and II. Carapace reddish-brown, with a conspicuous yellowish triangular region in the ocular region (Fig. 215 B). Sternum pale orange; chelicerae red-brown; legs with femora reddish-brown and the rest of articles clearest than femora; Sternum slightly orange; And abdomen pale beige (Fig. 215 A). 18 labial cuspules, 105 in right maxilla and 163 in left. **Eyes: Diameters:** PME 0.51, PLE 0.47, ALE 0.48, AME 0.46; **MOQ:** Length 1.68, front width 2.89, back width 1.01; **Interdistances:** PME–PME 2.26, PLE–PME 0.19, AME–AME 0.32, ALE–AME 0.87, ALE–PLE 0.83, AME–PME 0.87. **Ocular area:** OAL 6.77, OAW 5.35, and IF 3.68. **Body:** Clypeus: 0.38; Fovea: 3.94; Labium: long 2.48; wide 1.79; Chelicera: long 5.53; wide 3.09; Sternum: long 6.32; wide 5.25; Abdomen: long 12.46; wide 9.66. **Leg measurements:** I: Fe 5.15/ Pa 3.15/ Ti 2.3/ Me 2.86/ Ta 1.54/ total 15. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v5-22-23, d0, p0, r0-9-11; Me v0-4-3, d0, p3-5-5, r5-12-5; Ta v2-2-3, d0, p2-2-3, r3-5-3. III – Fe v0, d0, p0, r0; Pa v0, d0-4-29, p0-1-0, r0-2-11; Ti v2-9-13, d0-1-15, p0-0-3, r0-9-12; Me v0-10-16, d10-6-5, p0, r0-5-9; Ta v19-20-26,

d0-0-4, p7-11-9, r1-7-4; IV – Fe v0, d0, p0, r0; Pa v0, d16-13-7, p2-0-0, r0; Ti v0, d0, p0-0-1, r0; Me v0-0-3, d0-0-1, p0-1-3, r0; Ta v7-9-16, d0-0-2, p7-9-12, r0.

Spermathecae: Seminal receptacles longer than wide, with short ducts and a constriction in the middle. Lobes of external receptacles longest than internal lobes. In both receptacles, sclerotized region reaching the receptacles distal half (Fig. 217 A–D).

VARIATION.

FEMALES (n=6): Eyes: Diametres: PME 0.24–0.51, PLE 0.32–0.52, ALE 0.29–0.6, AME 0.19–0.46; **MOQ:** Length 1.11–1.68, front width 0.73–3.05, back width 1.01–3.43; **Interdistances:** PME–PME 1.59–2.64, PLE–PME 0.19–0.23, AME–AME 0.15–0.45, ALE–AME 0.53–1.24, ALE–PLE 0.54–0.92, AME–PME 0.68–0.89. **Ocular area:** OAL 4.91–7.9, OAW 3.66–5.92, and IF 2.26–3.81. **Body:** Total length: 12.52–29.32; Carapace: Length 6.29–10.09; Wide 5.99–10.27; Clypeus: 0.19–0.53; Fovea: 2.42–4.24; Labium: Length 1.88–3.09; Wide 1.41–2.16; Chelicera: Length 3.91–6.69; Wide 2.11–3.69; Sternum: Length 4.95–7.25; Wide 4.1–6.16; Abdomen: Length 6.58–16.19; Wide 5.72–12.07. **Legs:** I: Fe 2.19–6.08/ Pa 1.62–4.09/ Ti 1.25–2.53/ Me 1.1–3.62/ Ta 0.88–1.93/ total 7.04–18.21. II: 2.52–6.2/ 1.65–4.15/ 1.11–2.73/ 1.57–3.87/ 0.82–2.02/ 7.67–18.51. III: 3.29–5.63/ 2.72–4.77/ 1.35–1.77/ 1.98–3.77/ 0.78–1.51/ 10.14–17.17. IV: 4.63–7.69/ 2.86–4.92/ 2.57–4.47/ 2.86–4.72/ 1.2–2.13/ 14.09–23.56. **Spermathecae:** External lobes on each receptacle fluctuate in size than longer than internal lobes to the same size. The constriction in the middle of the receptacles can be pronounced (Fig. 217 A, D) or discrete (Fig. 217 B, C).

Distribution. BRASIL. Rio de Janeiro: Rio de Janeiro, Nova Friburgo, Itatiaia, Resende, Barra do Piraí, Piraí (Map 17).

Examined material. BRAZIL: *Rio de Janeiro:* [22° 54' S 43° 12' W], 3♀, viii.1986 (IBSP 114503, 123248, 123249); Nova Friburgo, [22° 17' 13.5594" S 42° 32' 0.9594" W], 1♀, ii.1981, P. Mix leg. (IBSP 104607); Itatiaia and Resende, [22° 19'–22° 45' S 44° 15'–44° 50' W], Parque Nacional de Itatiaia, 1♀, 02.iv.1995, C. Late leg. (IBSP 108889); Barra do Piraí, [22° 28' S 43° 49' W], 3♀ (AMNH); Piraí, Bairro Varjão, [22° 37' 46" S 43° 53' 53" W], 1♀, 15.iv.2005, A. B. Vargas and R. P. Indicatti leg. (IBSP 114470).

***Actinopus trinotatus* Mello-Leitão, 1938**

Figs 218–220, Map 18

Actinopus trinotatus Mello-Leitão, 1938: 311 (holotype ♀, Lagoa do Norte, Lagoa da Conceição, Florianópolis, Santa Catarina, Brazil, IBSP 103431, examined); World Spider Catalog, 2018.

Diagnosis. Females of *A. trinotatus* are characterized by the asymmetrical seminal receptacles, bilobed or trilobed; receptacles subquadrate, parallel to each other, without lateral swelling (Fig. 220 A); crown of thorns on the patella III interrupted in prolateral and retrolateral faces (Fig. 219 A).

FEMALE (holotype): Total length 15.86; Carapace, long 6.76; wide 8.22. Parallel lateral margins of carapace. Anterior eye row procurved, posterior row recurve. Many long bristles and short bristles between AME–clypeus, forming two rows subprocurves in interdistances PME–PME and PLE–PLE. Short bristles between AME–clypeus and between lateral eyes–edge of carapace. Long bristles in chillum (Fig. 218 B). Sternum with eight sigillae strongly fused in the middle (Fig. 218 C). Rastellum protuberant, digitiform, hirsute, with short spines along the retrolateral edge of rastellum and dorsally covered by small short spines (Fig. 218 E–F). Chelicera with denticles along the prolateral row of teeth. Denticles in the middle of prolateral and retrolateral rows of teeth (Fig. 218 D). Patella III and tibia III with distal developed crowns of thorns (Fig. 219 A–B). Tibia III with recurve distal crown of spines and strong spines along retrolateral surface of article (Fig. 219 B). Patella IV with prolaterodorsal short spines along the extension of articule (Fig. 219 C). Tibia IV without spines and with long bristles along prolaterodorsal surface (Fig. 219 D). Many strong spines in ventral surface of tarsi III and IV; And prolateral and retrolateral surfaces of tarsi and metatarsi I and II. Carapace and chelicera redish-brown; Sternum pale redish-brown; legs redish brown; and abdomen brown (Fig. 218 A). 40 labial cuspules, 181 in right maxilla and 192 in left. **Eyes: Diameters:** PME 0.21, PLE 0.44, ALE 0.47, AME 0.21; MOQ: Length 1.32, front width 0.88, back width 2.74; **Interdistances:** PME–PME 2.31, PLE–PME 0.13, AME–AME 0.41, ALE–AME 1.33, ALE–PLE 0.46, AME–PME 0.89. **Ocular area:** OAL 6.97, OAW 3.92, and IF 3.33. **Body:** Clypeus: 0.39; Fovea: 4.24; Labium: long 2.48; wide 1.89; Chelicera: long 5.91; wide 3.52; Sternum: long 5.67; wide 4.99; Abdomen: long 8.34; wide 6.35. **Leg measurements:** I: Fe 4.07/ Pa 3.28/ Ti

2.34/ Me 3.03/ Ta 1.37/ total 14.09. II: 4.18/ 2.87/ 2.67/ 2.81/ 1.8/ 14.33. III: 4.56/ 4.02/ 1.5/ 3.83/ 1.65/ 15.56. IV: 5.72/ 2.39/ 3.41/ 3.95/ 1.31/ 16.78. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0, dx, p0, r0; Ti v0-1-1, d0, p0-0-3, r9-11-9; Me v4-3-3, d0, p7-9-7, r12-14-6; Ta v0-2-3, d0, p2-4-5, r2-7-6. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v4-36-17, d0, p0, r0-28-15; Me v0-0-2, d0, p9-19-6, r3-6-5; Ta v0-3-2, d0, p2-6-8, r3-9-4; III – Fe v0, d0, p0, r0; Pa v0, d0-0-18, p0-0-1, r0-0-5; Ti v0, d1-0-15, p0-0-2, r0-12-25; Me v0, d4-7-4, p0, r2-23-18; Ta v18-17-11, d0-3-2, p2-6-8, r5-8-1. IV – Fe v0, d0, p0, r0; Pa v0, d17-10-5, p4-5-2, r0; Ti v0, d0, p0, r0; Me v0-0-2, d0-0-1, p0-0-2, r0; Ta v1-14-9, d0-0-2, p4-6-6, r0. **Spermathecae:** Assymmetric seminal receptacles, as long as wide, with short ducts. in dorsal view, left receptacle with three lobes, median lobe as long as the internal lobe, and longer than the external lobe; right receptacle with two lobes, outer lobe longer than inner lobe (Fig. 220 A).

Distribution. BRAZIL. Santa Catarina: Florianópolis, and Blumenau (Map 18).

Examined material. BRAZIL: *Santa Catarina:* Blumenau [26° 55' 59.9988" S 49° 2' 59.9994" W], 1♀, xii.1975, M. da R. Guimbra Jr. leg. (IBSP 114126); 3♀, xii.1972, R. L. A. leg. (MZSP 22110).

***Actinopus wallacei* F. O. Pickard-Cambridge, 1896**

Figs 221–225, Map 19

Actinopus wallacei F. O. Pickard-Cambridge, 1896: 728, pl. 35, f. 18 31 (holotype ♀, Santarém, Pará, Brazil, NHM, examined); Schiapelli & Gerschman, 1945: 167, pl. I; World Spider Catalog, 2018.

Note. The types were not available for study and for this reason the male is not redescribed here. The females here ascribed to *A. wallacei* are from Bolivia but present diagnostic characters congruent with the female type, examined through images by Janet Beccaloni (Figs 223–224).

Diagnosis. Females of *Actinopus wallacei* differ from all other species represented by females by the reddish-brown pattern widespread on legs, chelicera and carapace without larger tone differences. They are similar to those of *A. pampulha* by the spermathecae shape: two receptacles, each one with 2 or 3 lobes with same height as each other.

Differ from *A. pampulha* by the pore distribution reaching reaches 75% of the apical area in each receptacle.

FEMALE (AMNH): Total length 19.125; Carapace, long 6.75; wide 6.875. Carapace anterior part square. Anterior eye row slightly procurved, posterior row recurve. Short and long bristles in three rows between AME–clypeus, one long bristle between PLE–ALE, short and long bristles between posterior eyes-fovea and short and long bristles between lateral eyes-edge of carapace (Fig. 221 B). Sternum with eight sigillae fused in the middle, all sigillae very fused to each other (Fig. 221 C). Rastellum protuberant, subquadrate, hirsute, with a row of spines in the edge of rastellum and a lot of spines in dorsal part of rastellum (Fig. 221 E–F). Chelicera with denticles along the prolateral row of teeth. Prolateral row of teeth with eight megateeth and one teeth after the last basal megateeth. Retrolateral row of teeth with five megateeth and two teeth between three medial megateeth (Fig. 221 D). Patella III and tibia III with distal developed crowns of thorns (Fig. 222 A–B). Patella IV with prolaterodorsal spines along the extension of articule (Fig. 222 C). Tibia IV without spines and with many short and long bristles on surface of articule (Fig. 222 D). Carapace, chelicerae, sternum, coxae, trochantera, femora, patellae, Tibia, metatarsi, tarsi and palp redish brown, and abdomen pale gray (Fig. 221 A). 12 labial cuspules, 105 in right maxilla and 99 in left. Eyes: Diameters: PME 0.24 PLE 0.32 ALE 0.4, AME 0.2; MOQ: Length 1.36, front width 3.92, back width 3.56; Interdistances: PME–PME 2.2, PLE–PME 0.28, AME–AME 0.44, ALE–AME 1.36, ALE–PLE 0.72, AME–PME 0.84. Ocular area: OAL 6.5, OAW 4, and IF 3.5. Body: Clypeus: 0.62; Fovea: 3.5; Labium: long 1.75; wide 1.62; Chelicera: long 4.87; wide 2.87; Sternum: long 5.37; wide 4.25; Abdomen: long 11.25; wide 10. Leg measurements: I: Fe 4.37/ Pa 2.75/ Ti 2.25/ Me 1.75/ Ta 1.62/ total 12.75. II: 4.25/ 2.87/ 1.75/ 2.5/ 1.37/ 12.75. III: 3.75/ 3.12/ 1.5/ 2.75/ 1.12/ 12.25. IV: 5.37/ 3.25/ 3.12/ 2.5/ 1.12/ 15.375. Formula 4123. Spinulation: I – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v0, d0, p0-0-2, r5-15-11; Me v0-0-2, d0, p8-8-7, r12-15-4; Ta v0-0-3, d0, p4-5-3, r5-5-4. II – Fe v0, d0, p0, r0; Pa v0, d0, p0, r0; Ti v2-9-7, d0, p0, r32-45-26; Me v0-0-2, d0, p1-6-8, r13-8-7; Ta v1-2-3, d0, p7-6-2, r2-4-3. III – Fe v0, d0, p0, r0; Pa v0, d0-0-23, p0-0-7, r0-1-11; Ti v0, d1-0-14, p0-0-5, r5-10-12; Me v0-0-2, d2-2-3, p4-2-0, r7-17-8; Ta v13-17-13, d0, p0-4-3, r2-7-4; IV – Fe v0, d0, p0, r0; Pa v0, d20-9-5, p1-3-0, r0; Ti v0, d0, p0, r0; Me v0, d0-0-1, p1-2-5, r0; Ta v0-6-8, d0, p16-13-10, r0-0-5. Spermathecae: Two seminal receptacles slightly asymmetric, longer than wide, with

short ducts. On dorsal view, left receptacle with three lobes and right receptacle with two lobes, external lobe with the same height as other lobes. Pore distribution reaching 75% of each receptacle apical length (Fig. 225 A).

VARIATION.

FEMALES (n=6): Eyes: Diameters: PME 0.12–0.32, PLE 0.24–0.4, ALE 0.28–0.56, AME 0.12–0.32; MOQ: Length 0.76–1.44, front width 1.88–4, back width 1.8–3.72; Interdistances: PME–PME 1.04–2.2, PLE–PME 0.08–0.28, AME–AME 0.2–0.44, ALE–AME 0.72–1.36, ALE–PLE 0.4–0.8, AME–PME 0.4–0.84. Ocular area: OAL 3.25–6.5, OAW 2.25–5, and IF 1.62–3.5. Body: Total length: 10.87–19.12; Carapace: long 3.75–7.37; wide 3.75–7.5; Clypeus: 0.37–0.62; Fovea: 1.75–3.75; Labium: long 1–2.12; wide 0.87–1.87; Chelicera: long 2.62–4.87; wide 1.5–3.25; Sternum: long 2.87–5.62; wide 2.5–4.75; Abdomen: long 6.25–11.25; wide 4.75–10. Leg measurements: I: Fe 3–4.37/ Pa 1.62–3/ Ti 1.12–2.25/ Me 1.25–2.62/ Ta 0.75–1.62/ total 7.12–13. II: 2.25–4.37/ 1.5–3.12/ 1–1.87/ 1.5–2.75/ 0.87–1.37/ 7.12–13.25. III: 2.12–4.37/ 1.87–3.5/ 0.5–1.5/ 1.62–2.75/ 0.75–1.37/ 7.12–2.72. IV: 2.87–5.62/ 1.87–3.75/ 1.75–3.12/ 1.87–3.62/ 0.75–1.25/ 9.12–17. Formula 4123.

Distribution. BRAZIL. Pará: Santarém. BOLIVIA. Santa Cruz: San Miguel de Monte, Puerto Pailas, and La Bola (Map 18).

Examined material. BOLIVIA: *Santa Cruz*: [17° 52' S 63° 0' W], San Miguel de Monte Grande (Rd. To Camiri, Km 35), 1♀, 12.i.1991, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); Puerto Pailas, Bridge over Rio Grande, 2♀7J, 8.i.1991, P. A. Goloboff, Santisteban & McHugh leg. (AMNH); La Bola, 3♀, 8.i.1991, P. A. Goloboff, Santisteban & McHugh leg. (AMNH).

Actinopus cochabamba Ríos-Tamayo, 2016

Actinopus cochabamba Ríos-Tamayo, 2016: 186, fig 2A–E (holotype ♀, Charamoco, Cochabamba, Bolivia [17°36' S 66°16' W], 12.1941, J. Vellard leg. (MACN-Ar 778), not examined.

Diagnosis. Females of *A. cochabamba* are unique in the genus by the square-shaped post-labial sigillum (Ríos-Tamayo, 2016, fig. 2B). They resemble to those of *A. xenus*

by the unilobated spermathecae receptacles but differ by the receptacles shape, which are parallell, subquadrate in *A. xenus* (Fig. 214A) and divergent, conical in *A. cochabamba* (Ríos-Tamayo, 2016, fig. 2E).

Description. See Ríos-Tamayo (2016: 186).

Distribution. BOLIVIA: Cochabamba.

Discussion

The present paper focuses on the taxonomy of 61 species of *Actinopus* (44 newly described and 16 redescribed species, in addition to the re-diagnosing of the type species *A. tarsalis*, redescribed by Miglio *et al.* (2012), as well as two recently described species, *A. goloboffi* Ríos, 2014 and *A. cochabamba* Ríos-Tamayo, 2016. These results are derived from the examination of nearly 1375 adult specimens, an effort that also rendered the discovery of the unknown females of *A. dubiomaculatus* and *A. cucutaensis*, and the unknown males of *A. nattereri*. The criteria used to proceed with these matches included congruent morphological characters and geographical distribution. In the case of *A. dubiomaculatus*, in addition to these criteria, males and females were collected in the same sampling event. Despite the large number of examined specimens, the vast majority of species here recognized as valid remains known by just one sex, a situation that makes the taxonomic knowledge of *Actinopus* still unsatisfactory. The majority of the new species here presented are known only by males. This is easily understandable giving the fact that females are much rarer in collections than males and because it is nowadays clear that describing new species based only in females is not advisable due to the lack of straightforward diagnostic characters and these females spend the most part of your lifes in burrows with doors, hindering the process of collecting these animals.

From the 29 currently nominal species valid for *Actinopus*, 10 were here declared as *species inquirendae* on grounds that the type specimens were based in juvenile specimens or, even if based in adult specimens, they are lost. However, a great effort was made here to avoid making unnecessary names available. Thus, the identity of several species with missing types was established by the careful study of original descriptions. Despite the enormous difficulty of identifying species based on old descriptions, which are generally poorly informative and devoid of illustrations,

congruence of morphological characters and geographic distributions of the material examined with the information in the literature rendered the harnessing of five old historic names, *A. pusillus*, *A. dubiomaculatus*, *A. echinus*, *A. nattereri* and *A. paranensis*, which otherwise should be declared as unrecognizable.

The taxonomy of *Actinopus* is particularly difficult not only for the unavailability of types or for the uninformative literature, but also due to the absence of unique morphological details that could provide effective diagnosis to recognize species and groups of species. Thus, most of the taxa here recognized can only be identified by combinations of characters. Maybe this is one of the main reasons for the fact that the diversity of the genus has been so underestimated in the past 200 years, with few and isolated new descriptions. Even counting the unrecognizable species, the present paper increased the known species richness of *Actinopus* in nearly 240%, revealing a possible scenario of high species endemism in the genus.

In order to facilitate the use of this revision in identification routines, eleven groups of species were diagnosed and keyed. These groups are only taxonomic tools, not supposed to primarily represent putative monophyletic groups, and were based mainly in characters from the male palp. From the 62 species here diagnosed, only 10 could not be included in these groups, because they are known only from females of due to their deviating male palpal morphology. The species known only by females are *A. echinus*, *A. princeps*, *A. trinotatus*, *A. wallacei* and *A. xenus*. An additional species, *A. wallacei*, is also known by males, but was not included in any group because the types were not available for this study. The species known by males that were not placed in groups of species are *A. loscocos*, *A. apiacas* and *A. panguana*. The male palpal morphology presented by these species is considerably different from that presented by other *Actinopus* and each one of these species would stand in a group of their own.

The majority of characters proposed here to differentiate the species and groups of species are related to the male copulatory bulb, the female spermathecae and patterns of coloration in legs and palps of both sexes. These coloration patterns are very widespread across taxa and are generated by contrasting coloration between articles of legs or/and palp, some of which may be paler than other articles on the same leg. The most common state of this character is the palpal tibia yellowish or orange, paler than other palpal articles. This condition is shared by all groups recognized here, except on the group *tarsalis*. Notwithstanding, other seven additional patterns of leg coloration could be found in *Actinopus*: (1) Patella, tibia, metatarsi and tarsi of legs paler than

remaining articles (as in females of *A. rufipes*); (2) Tibia, metatarsi and tarsi of legs paler than remaining leg articles (as in males of *A. crassipes*); (3) Metatarsi and tarsi of legs paler than other leg articles (as in males of *A. dubiomaculatus*); (4) Tibia of palp, and tibia, metatarsi and tarsi of legs paler than other articles (as in *A. pusillus*); (5) Tibia of palp, and metatarsi and tarsi of legs paler than other articles (as in *A. dioi*); (6) Patella and tibia of palp paler than other palpal articles (as in males of *A. rufipes*); and (7) Tibia and cymbium of palp paler than other palpal articles (as in *A. azaghal*).

Other important somatic (non genitalic) character, at least to define the group *osbournei*, is the pattern of distribution of sternal sigillae: (1) converging to the middle of sternum but separated (as in group *osbournei*, Figs 133 C, 136 C); or (2) fused in the middle of sternum (as in all other species, eg. *A. jaboticatubas*, Fig. 39 C).

Important diagnostics characters related to copulatory bulb of males are based in the presence, absence or in the shape of apophyses, keels and tegular processes. These structures are always associated to the tegular surface or to the embolus and were described as follows: (1) Basal tegular apophysis (BTA) present (in most species, Fig. 38 A) or absent (as in group *tarsalis* and *A. concinnus*, Figs 9 A, 195 A, respectively); (2) Position of BTA on prolateral view of copulatory bulb: Displaced ventrally in relation to a middle longitudinal line along prolateral tegular surface (as in *A. laventana*, Fig. 129 A); Placed medially on prolateral tegular surface (as in *A. crassipes*, Fig. 107 A); Displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface (as in *A. fractus*, Fig. 21 A); (3) Absence (as in *A. cucutaensis*, Fig. 176 A) or presence of one (as in *A. anselmoi*, Fig. 171 A), two (as in *A. fractus*, Fig. 21 A) or three (as in most species, Fig. 107 A) keels visible on prolateral view of copulatory bulb; (4) Paraembolic apophysis (PA) conspicuous or inconspicuous, respectively as in *A. nattereri* (Fig. 67 A–C) and *A. harveyi* (Fig. 78 A–C); (5) PA contiguous to prolateral superior keel (as in *A. nattereri*, Fig. 67 A), between prolateral superior and prolateral inferior keels (as in *A. buritiensis*, Fig. 29 A), contiguous to prolateral inferior keel (as in *A. utinga*, Fig. 103 A), between prolateral inferior and prolateral accessory keels (as in *A. cornelli*, Fig. 62 A), or contiguous to prolateral accessory keel (as in *A. rufipes*, Fig. 72 A); (6) PA placed ventrally in relation to a middle longitudinal line along prolateral tegular surface and on prolateral tegular border (as in *A. osbournei*, Fig. 135 A); or PA displaced dorsally in relation to a middle longitudinal line along prolateral tegular surface and secluded from prolateral tegular border (as in *A. apiacas*, Fig. 201 A); (7) Presence (as in *A. guajara*, Fig. 192 A) or absence (as in *A. dioi*, Fig. 138 A) of

apical tegular process (ATP) (The tegular modification in *A. jamari* is here recognized as PA, not as ATP, because it's surface present keels. Considering there is not a strong evidence of homology between these features we preferred to maintain *A. jamari* out from the groups.); (8) Position of ATP on prolateral view: Relatively parallel to embolus (as in *A. cucutaensis*, Fig. 176 B); or oblique in relation to the embolus (as in *A. robustus*, Fig. 181 B); (9) Position of ATP on dorsal view: Almost in the same plane in relation to embolus (as in *A. cucutaensis*, Fig. 176 A); or inserted obliquely in relation to the embolus (as in *A. concinnus*, Fig. 195 A); (10) Presence (in *A. panguana*, Fig. 206 A–C) or absence (as in all other species; eg. *A. obidos*, Fig. 26 A) of dorsal tegular process (DTP).

Other informative character that may be present or absent in the copulatory bulb is the embolar serrated area. This character may be present in the following states: (1) absent (as in *A. nattereri*, Fig. 67 A–C); (2) Represented by at most two cusps below the most inferior keel (PI or PAc) (as in group *apalai*, Figs 15 A–C, 16 A–C); (3) Represented by three or more cusps (as in *A. osbournei*, Fig. 135 A, C). The serrated area could be also described by the position and shape of cusps. As for the position, the serrated area could be restricted to the basal portion of embolus (as in *A. crassipes*, Fig. 107 A, C); Along the embolar length, below the most inferior keel (PI or PAc) (as in *A. dubiomaculatus*, Fig. 112 A, C); Or widespread along the entire embolar surface (as in *A. bocaina*, Fig. 124 A–C). The morphology of the cusps is also informative in *A. bocaina*, where they are square (Fig. 124 A–C), opposing to the sharply pointed condition, as in all other species (eg. *A. pusillus*, Fig. 118 A–C).

The female spermathecae can have one (as in *A. obidos*, Fig. 26 D) or two receptacles (as in *A. nattereri*, Fig. 67 D). Each receptacle can have one (unilobed, as in *A. nattereri*, Fig. 67 A), two (bilobed, as in *A. ipioca*, Fig. 88 D) or three (trilobed, as in the right receptacle on dorsal surface of *A. trinotatus*, Fig. 220 A) lobes. The occurrence, in several species, of intraspecific variation in the shape of spermathecae and number of lobes is a complication factor and, for this reason, these characters must be evaluated in combination with another important characteristic of the female spermathecae: the distribution of pores along the receptacles surface. The pore distribution may be presented as: (1) Widespread on 75% of receptacle apical portion (as in *A. nattereri*, Fig. 67 D); Occurring in 100% of the receptacle surface (as in *A. laventana*, Fig. 129 D); and (3) occurring in 100% of receptacle surface and extended to portions of the basal membrane (as in *A. obidos*, Fig. 26 D).

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FIGURE 01 – *Actinopus rufipes* (Lucas, 1834), female: A–C CAD 77: A. Dorsal habitus; B. Burrows, with doors closed. Red arrows: Doors; C. Burrow with a specimen. Images: J. P. L. Guadanucci.



FIGURE 02 – *Actinopus tutu* n.sp., male: UFMG 13835: A. Burrow with a specimen; female: UFMG 15902: B. Dorsal habitus; male: UFMG 18862: C. Dorsal habitus; D. Defense position. Images: P. H. Martins.

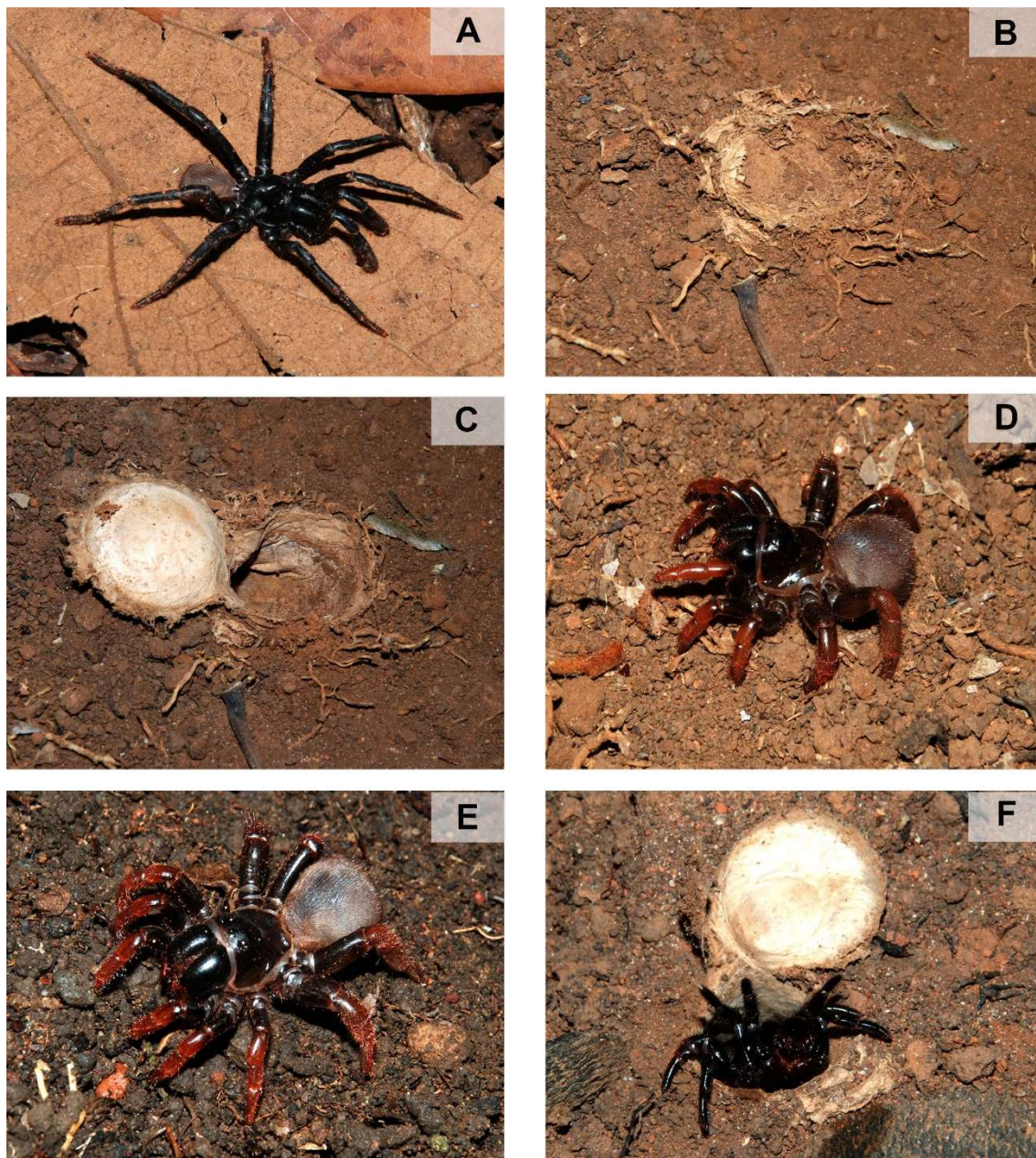


FIGURE 03 – *Actinopus itacolomi* n.sp., male: UFMG 18784: A. Dorsal habitus; female: B-D UFMG 18773: B. Burrow; C. Opened burrow; D. Dorsal habitus; female: UFMG 18786: E. Dorsal habitus; female: UFMG 18807 F. Spider at door of burrow. Images: P. H. Martins.

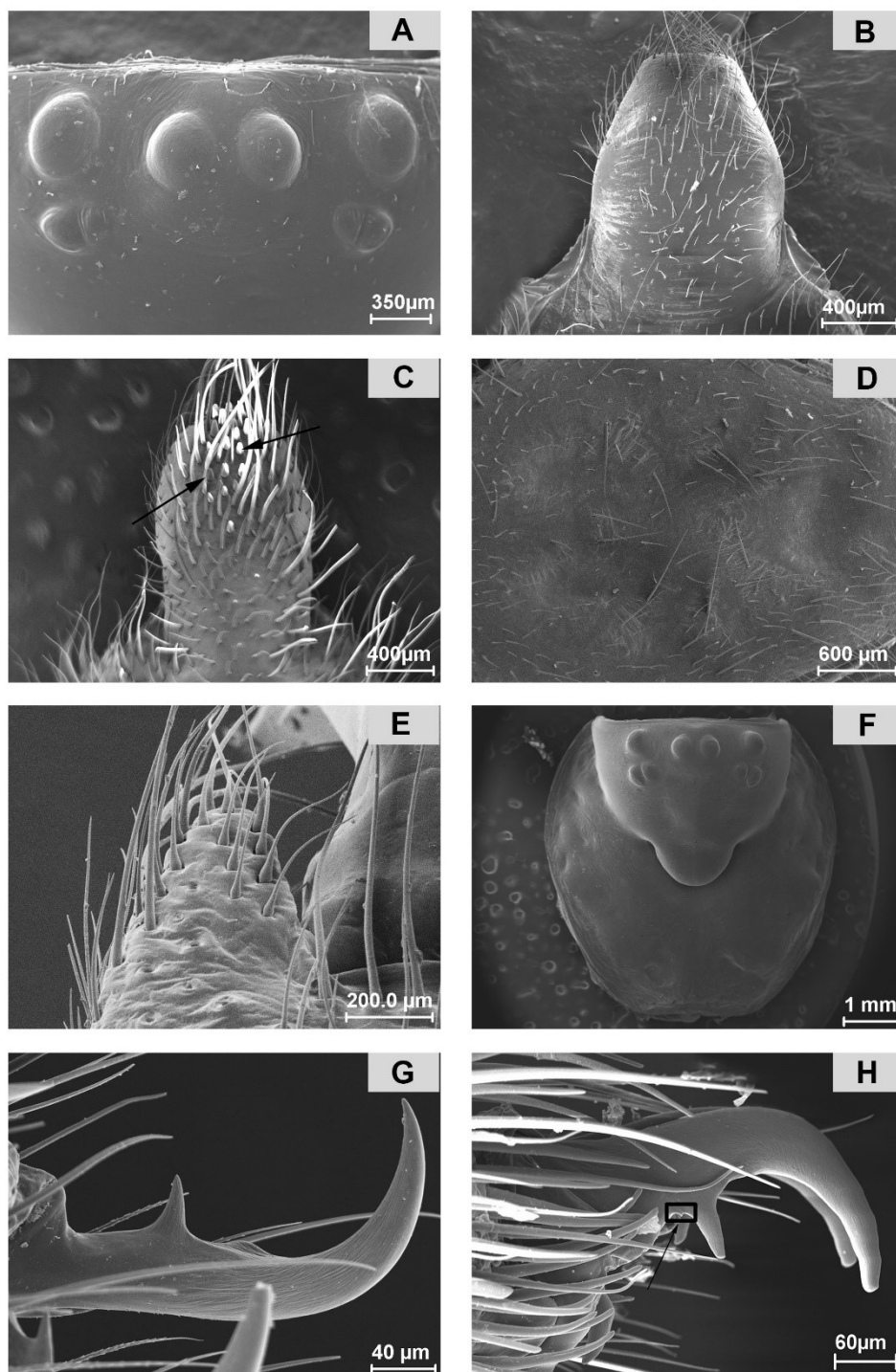


FIGURE 04 – *Actinopus tutu* n. sp., male: A, H IBSP 110494; *Actinopus caxiuana* n. sp., male: B MPEG 2537; *Actinopus itapitocai* n. sp., female: C MZSP 22113; *Actinopus dioi* n. sp., male: D, E MPEG; *Actinopus bocaina* n. sp., male: F UFMG 1606; *Actinopus obidos* n. sp., male: G MPEG: A. Eyes, dorsal; B. Labium, ventral; C. Labium with cuspules, ventral; D. Sternum, ventral; E. Rastellum, dorsal; F. Carapace, dorsal; G. Superior tarsal claw III, lateral; H. Superior tarsal claw III, lateral; Arrow and quadrangle: Denticle.

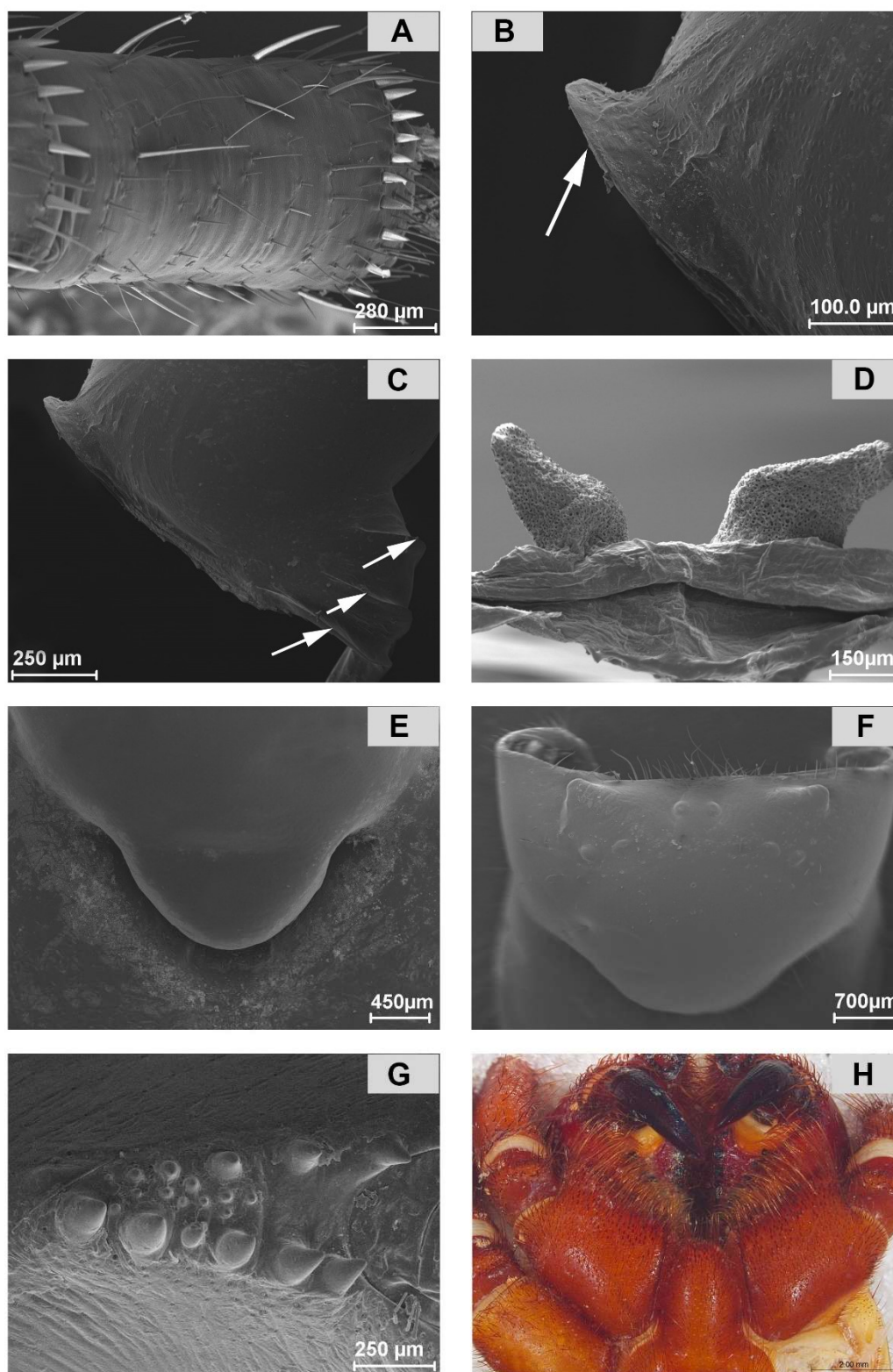


FIGURE 05 – *Actinopus obidos* n. sp., male: A MPEG; *Actinopus pampulha* n. sp., male: B, C IBSP 114454; *Actinopus itapitocai* n. sp., female: D, F MZSP 22113; *Actinopus caxiuana* n. sp., male: E MPEG 2537; *Actinopus urucui* n. sp., male: G CHNUFPI 183; *Actinopus xenus* Chamberlin, 1917, holotype, female: H MCZ 3: A. Tibia III, dorsal; B. Paraembolyc apophysis, prolateral; C. Prolateral keels (arrow), prolateral; D. Spermathecae, dorsal; E. Fovea, dorsal; F. Eyes, dorsal; G. Cheliceral teeth, ventral; H. Labium and maxillae, ventral.

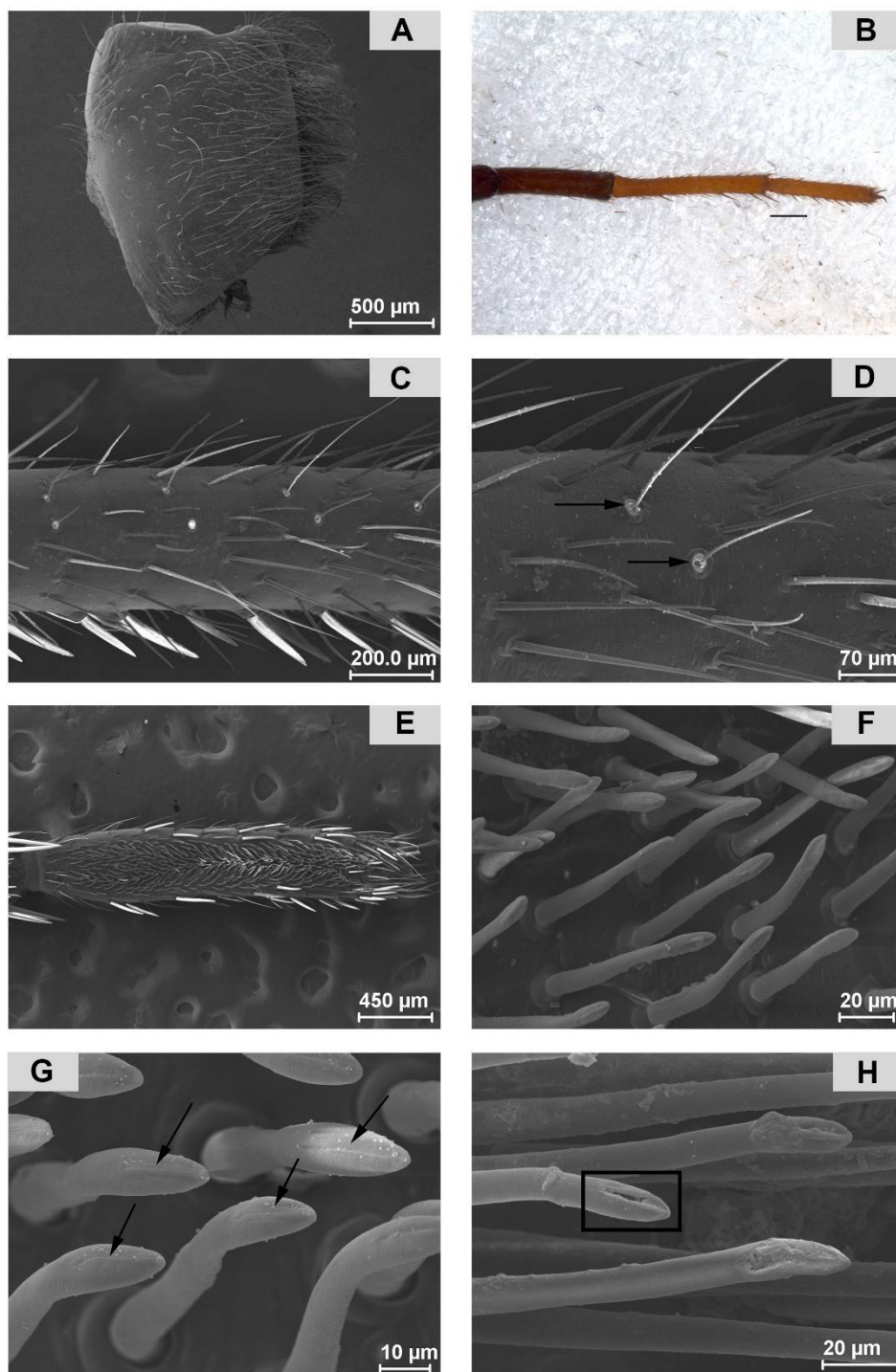


FIGURE 06 – *Actinopus urucui* n. sp., male: A CHNUFPI 183; *Actinopus dubiomaculatus* n. sp., male: B MCN 13243; *Actinopus obidos* n. sp., male: C, D MPEG; *Actinopus anselmoi* n. sp., male: E, F IBSP 107985; *Actinopus rufipes* (Lucas, 1834), male: G IBSP 161467; *Actinopus ducke* n. sp., male: H INPA 6124: A. Maxillae, ventral; B. Tibia, metatarsus and tarsos II, dorsal; C. Tarsus I, dorsal; D. Tarsus I, dorsal, arrow: Trichobothria base; E-F. Tarsus IV, ventral; G. Tarsus III, ventral, Arrow: Chemosensitive fissures, closed; H. Tarsus II, ventral, Quadrangle: Chemosensitive fissure, opened.

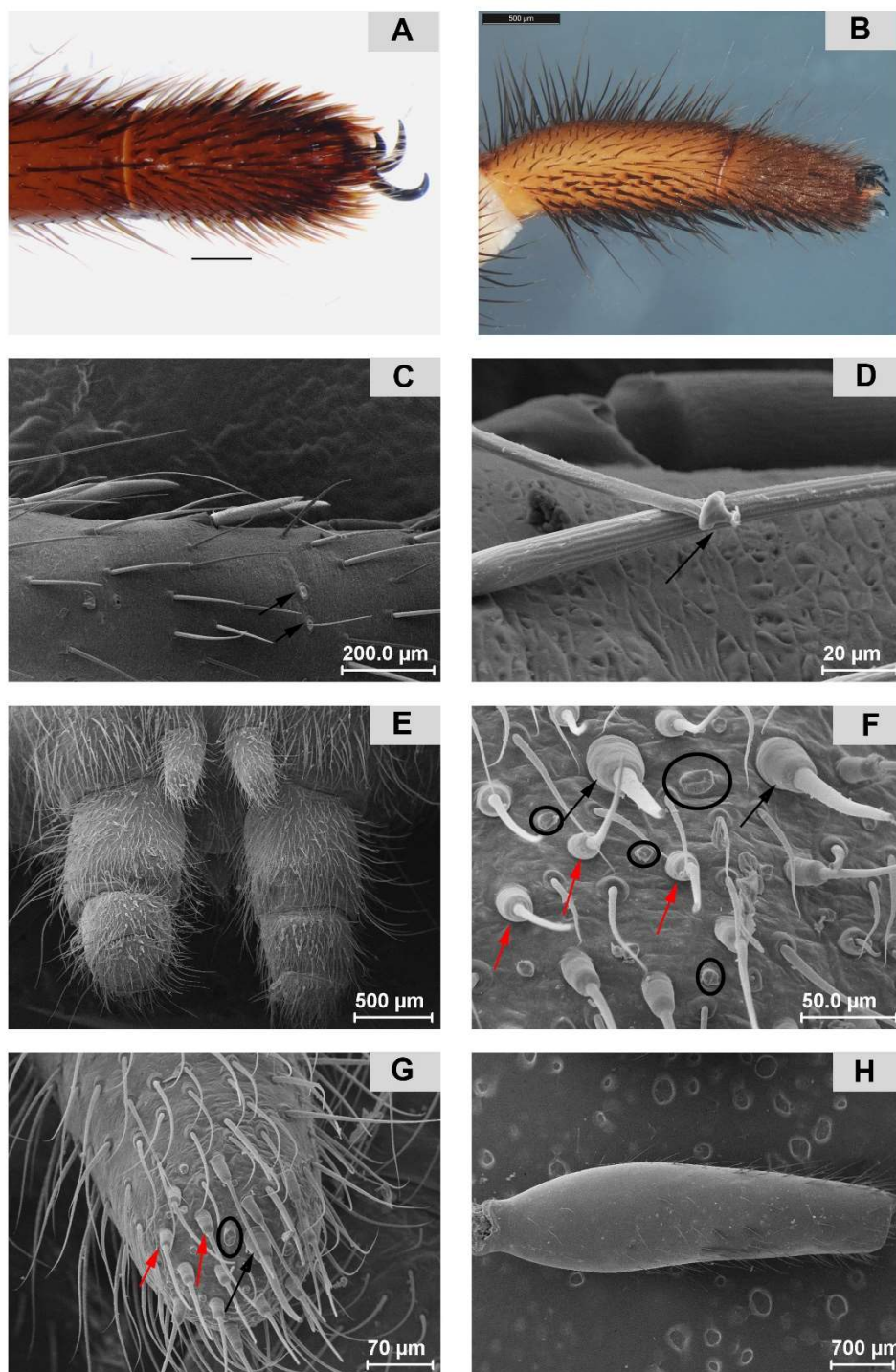


FIGURE 07 – *Actinopus nattereri* (Doleschall, 1871), female: A IBSP 113544; *Actinopus rufipes* (Lucas, 1834), female: B IBSP 161467; *Actinopus urucui* n. sp., male: C, D, H CHNUFPI 183; *Actinopus dioi* n. sp., male: E-G MPEG: A. Tarsus, ventral; B. Tibia, metatarsus and tarsus, lateral; C. Metatarsus II, dorsal; D. Metatarsus II, dorsal; E. Spinnerets, ventral; F. Spigots on PLS, ventral, Red arrow: Secondary ampullar, Black arrow: Principal ampullar, and circunferences: Tartipores; G. Spigots on PMS, ventral, red arrow: Secondary ampullar, black arrow: Principal ampullar, and circunferences: Tartipores; H. Tibia of palp, Lateral.

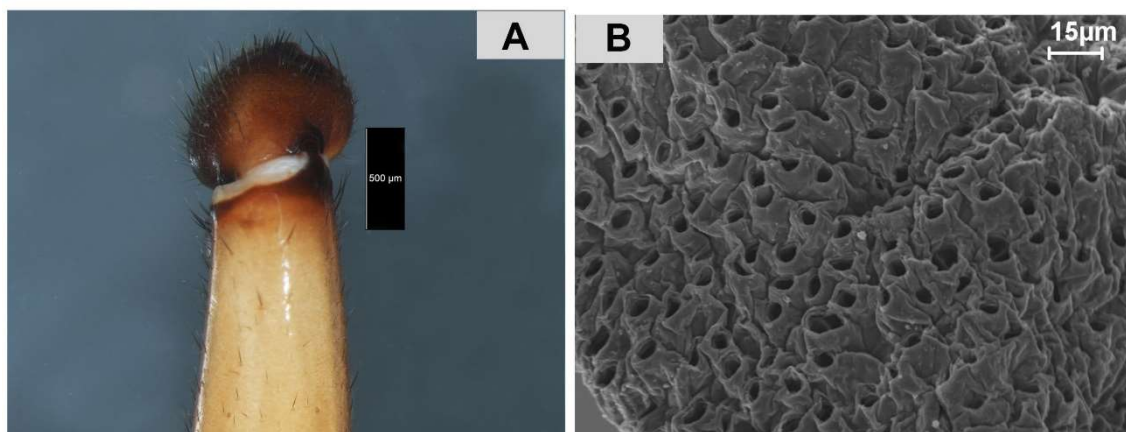


FIGURE 08 –*Actinopus rufipes* (Lucas, 1834), male: A IBSP 161468; *Actinopus itapitocai* n. sp., female: B MZSP 22113: A. Tibia of palp and cymbium, dorsal; B. Spermathecae receptacle, dorsal.

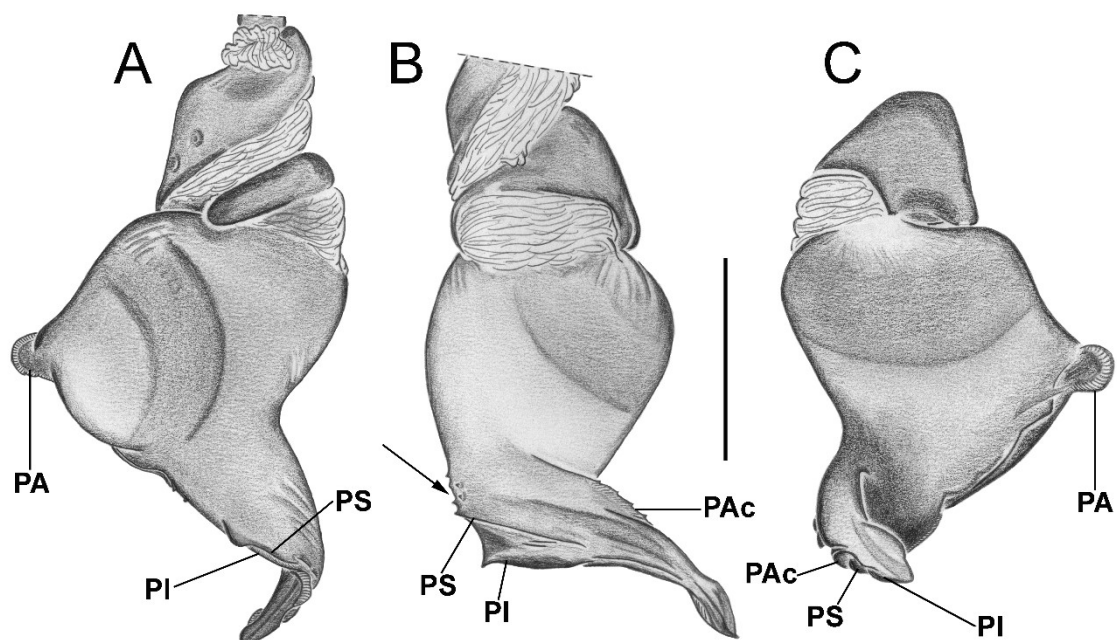


FIGURE 09 – *Actinopus tarsalis* Perty, 1833, male: A–C MPEG 11717: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **PAc** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrow: Serrated Area. Scale line: 1 mm.

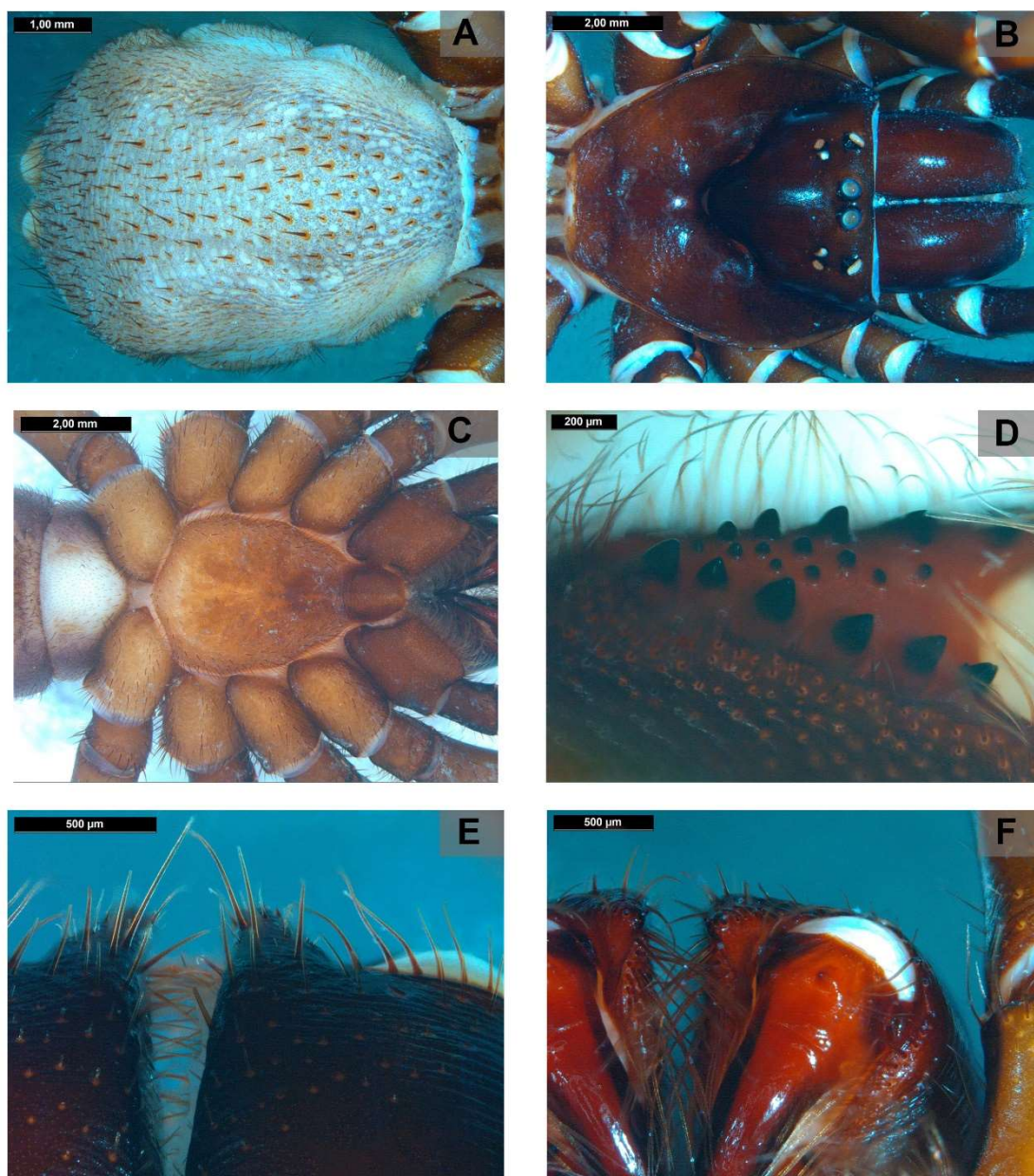


FIGURE 10 – *Actinopus castelo* n. sp., paratype, male: A–F MPEG 2399: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

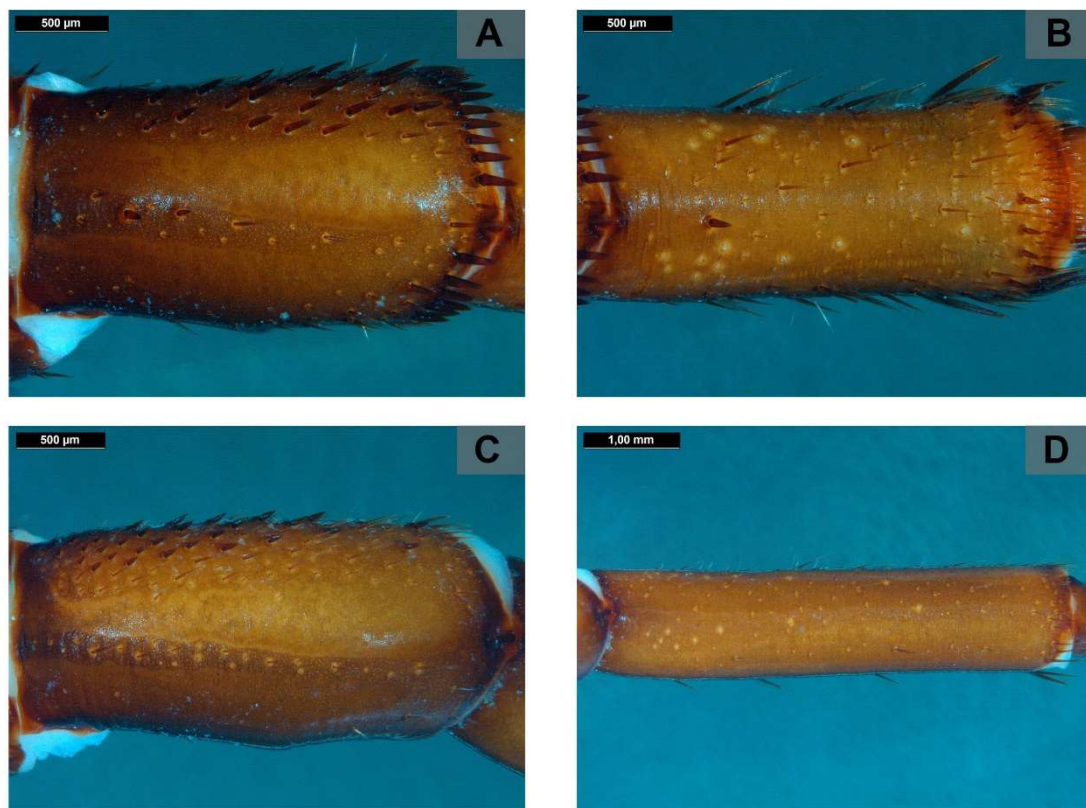


FIGURE 11 – *Actinopus castelo* n. sp., paratype, male: A–D MPEG 2399: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

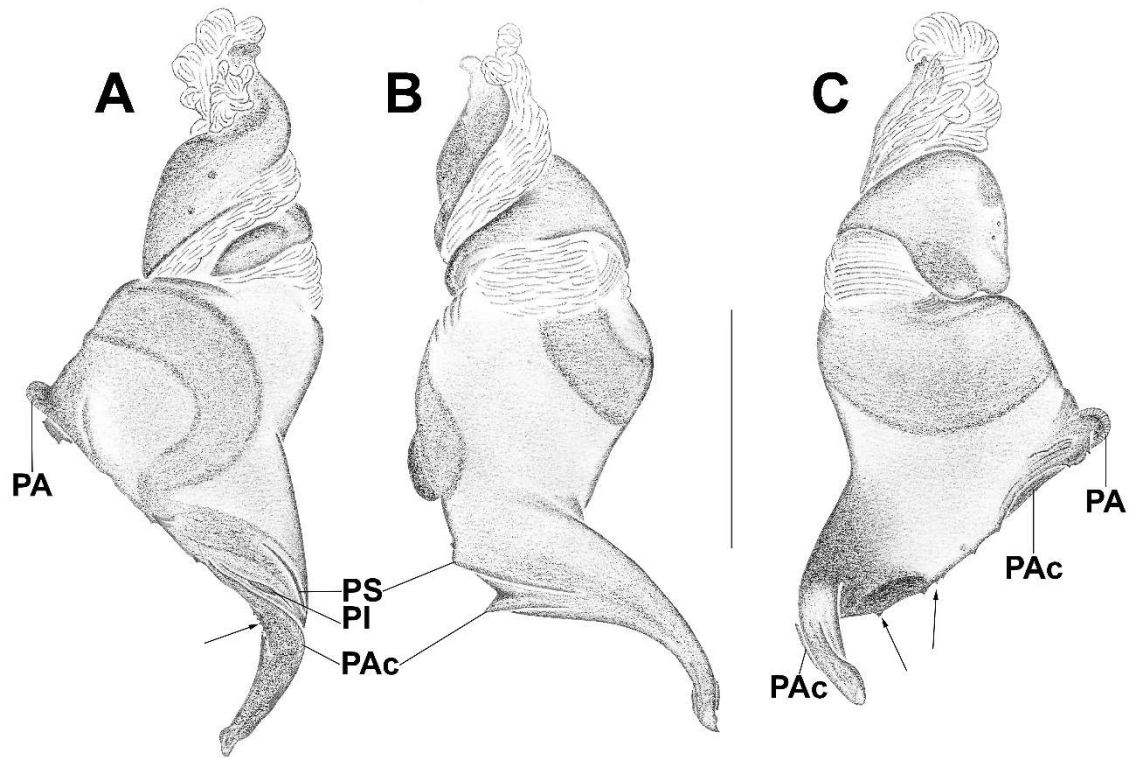


FIGURE 12 – *Actinopus castelo* n. sp., male: A–C MPEG 22277: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **PAc** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

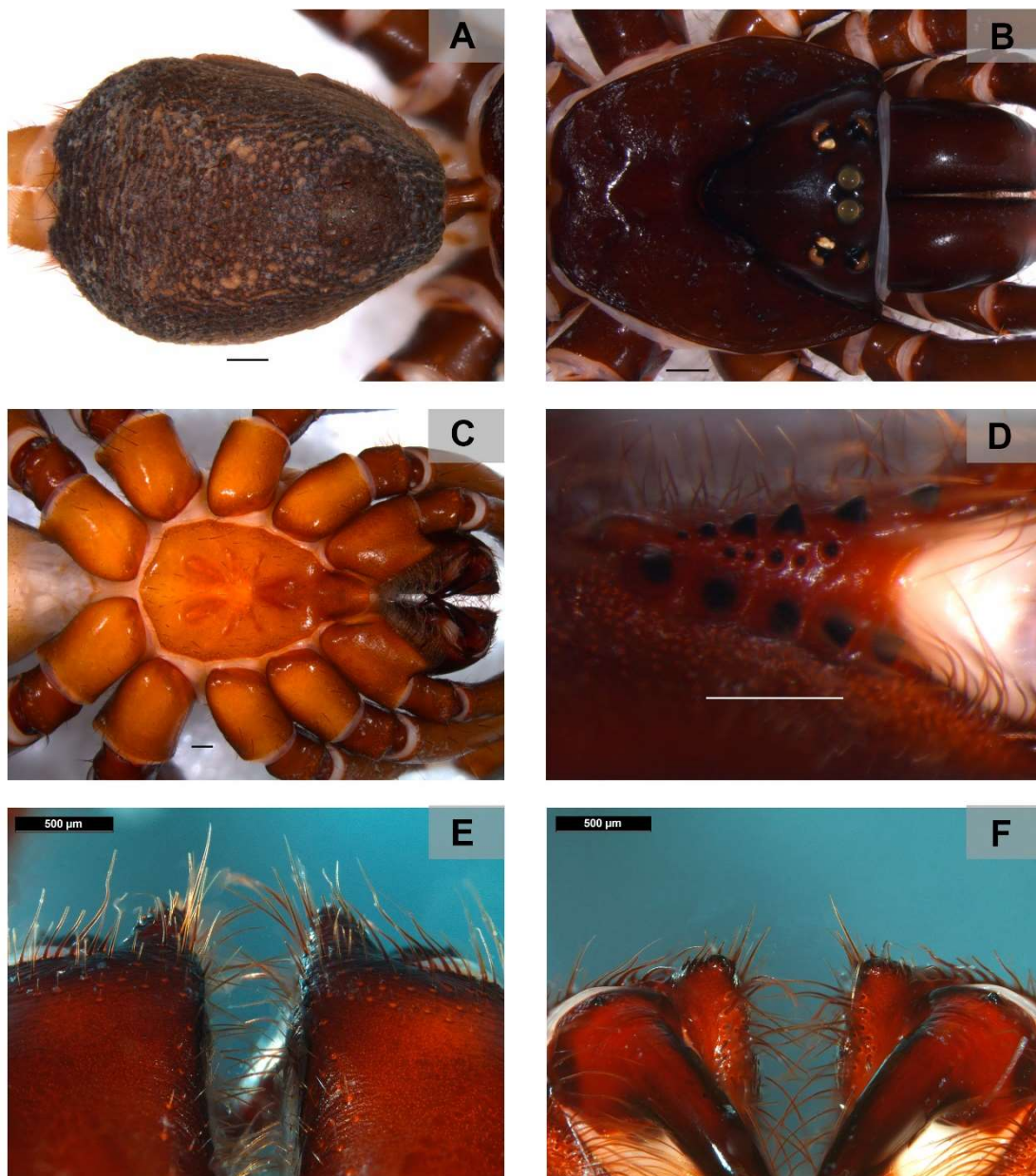


FIGURE 13 – *Actinopus apalai* n. sp., holotype, male: A-F MPEG 2276: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

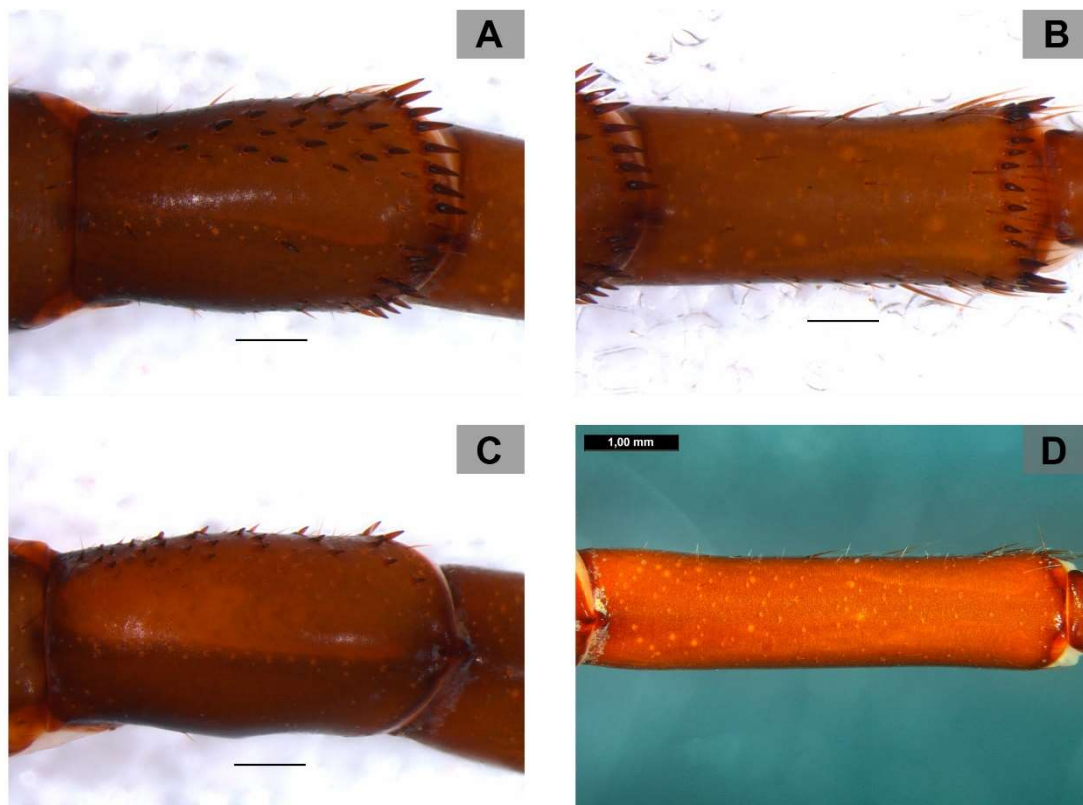


FIGURE 14 – *Actinopus apalai* n. sp., holotype, male: A-D MPEG 2276: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

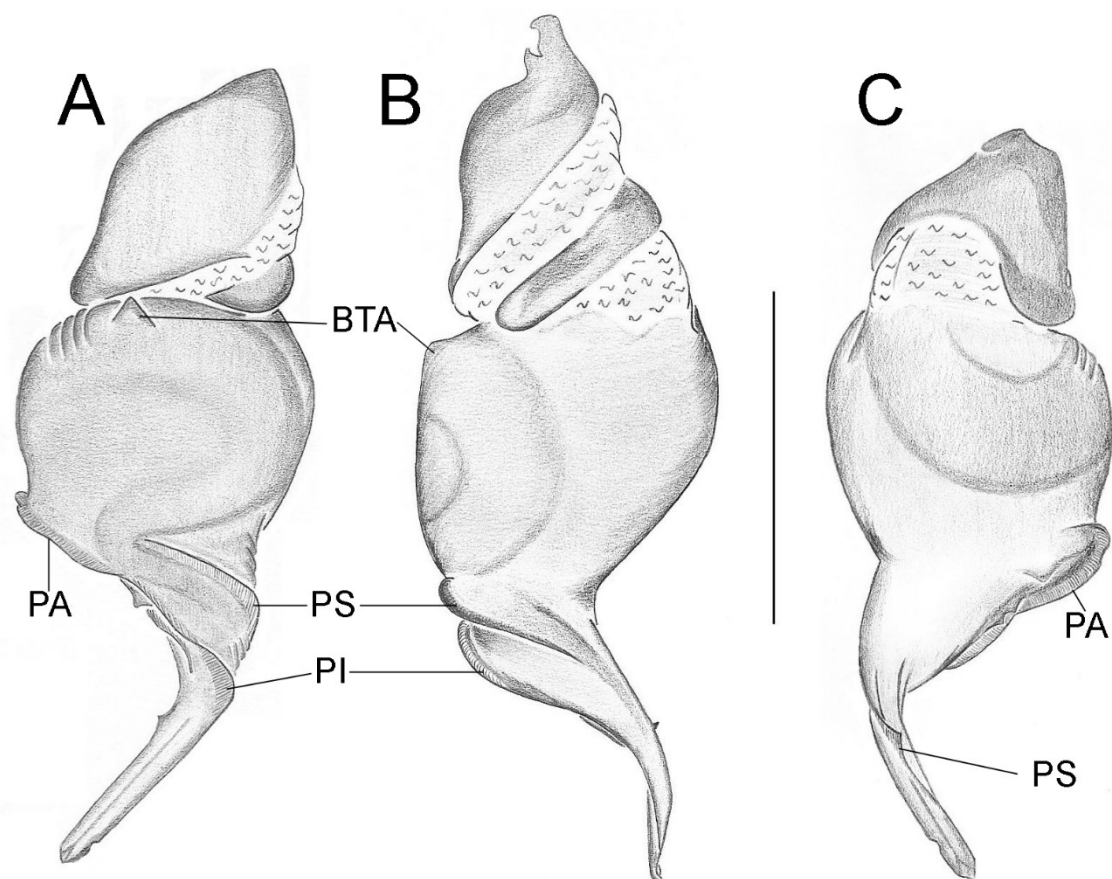


FIGURE 15 – *Actinopus apalai* n. sp., male: A–C MPEG 13184: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal tegular apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

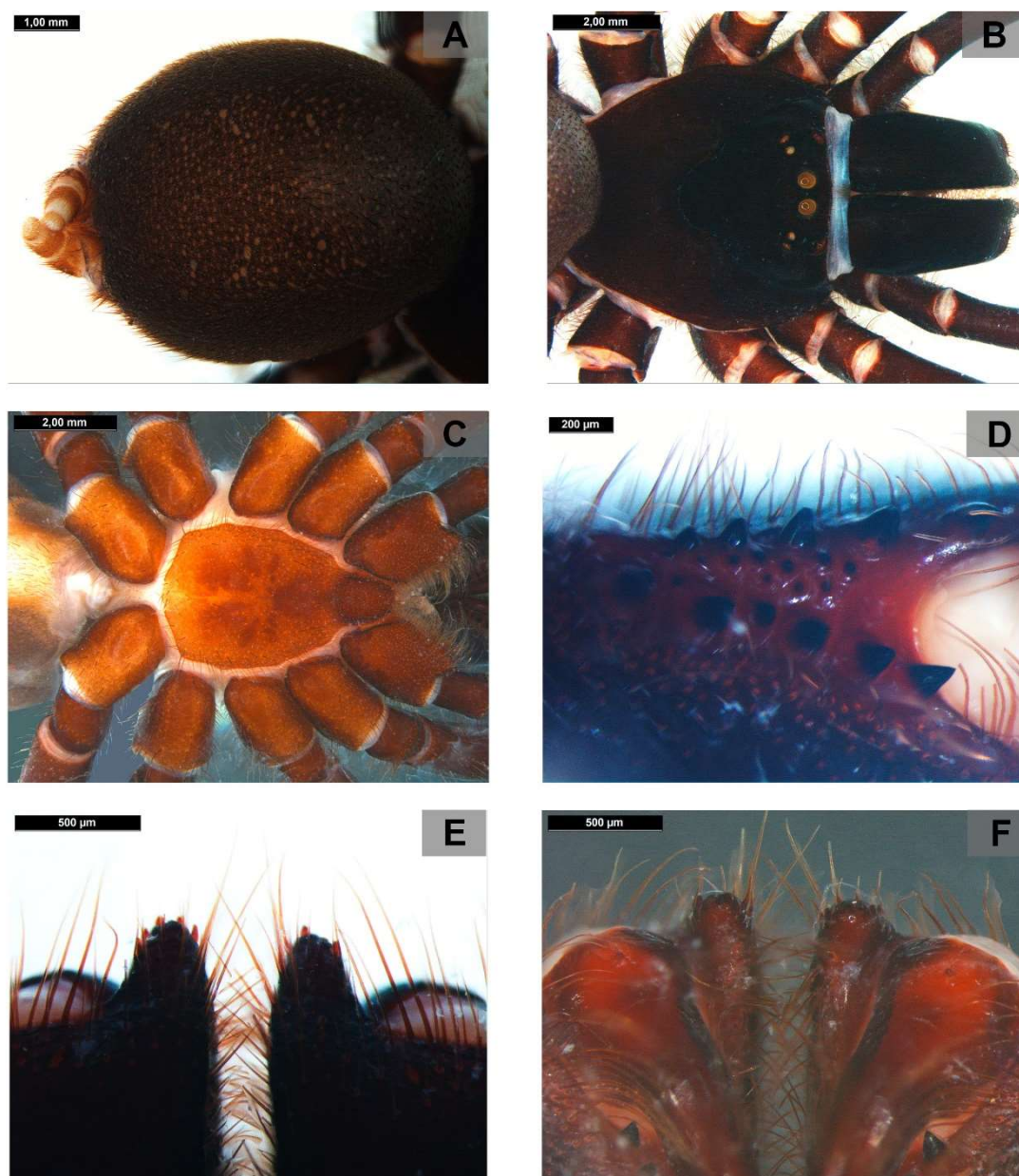


FIGURE 16 — *Actinopus mairinquensis* n. sp., holotype, male: A-F IBSP 110484: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

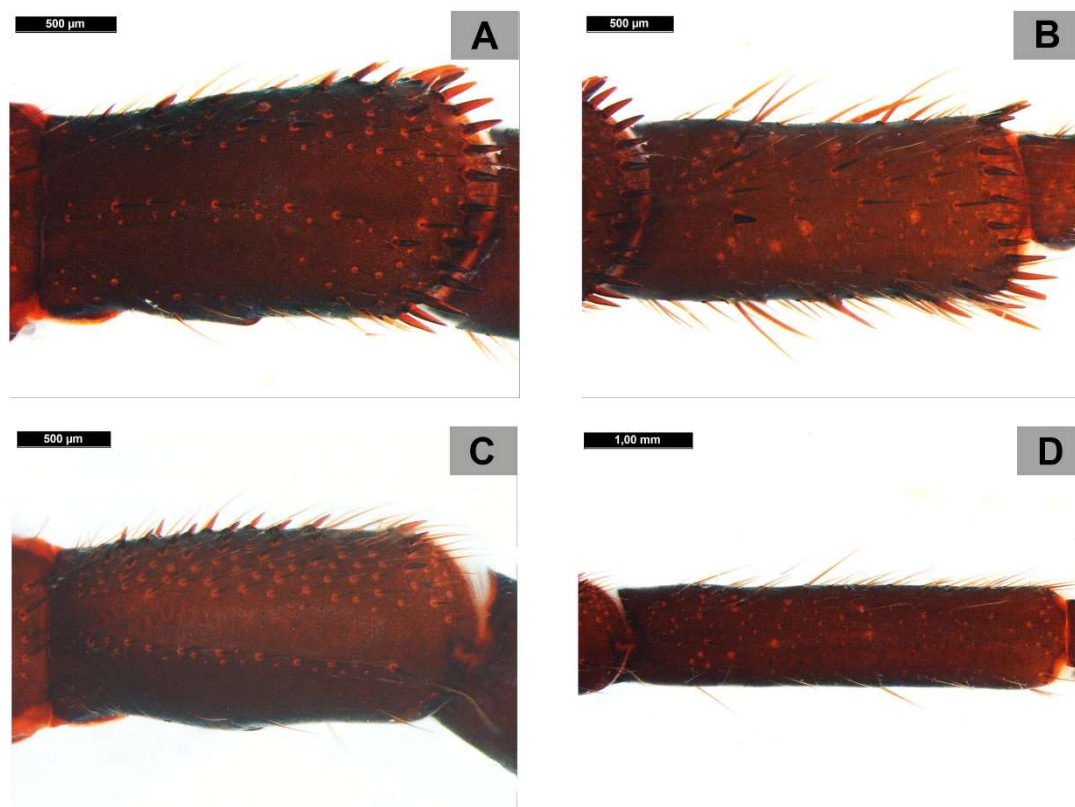


FIGURE 17 – *Actinopus mairinquensis* n. sp., holotype, male: A-D IBSP 110484: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

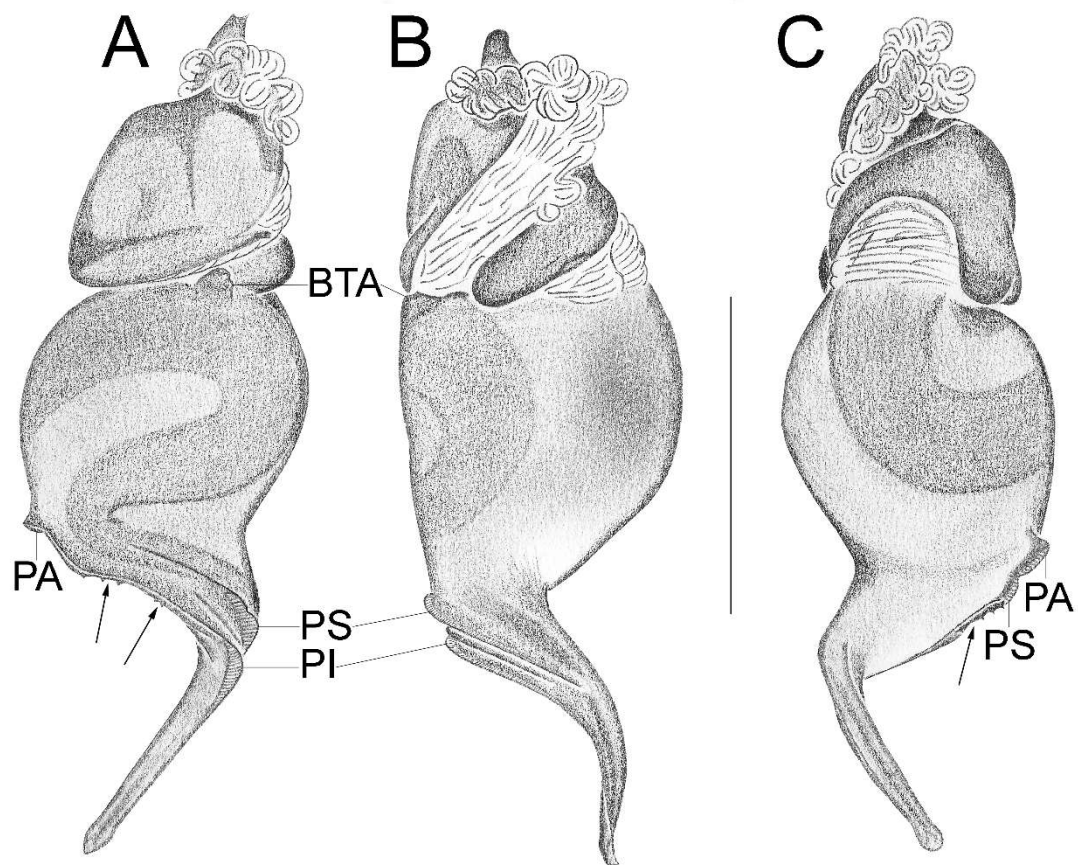


FIGURE 18 – *Actinopus mairinquensis* n. sp., male: A–C IBSP 110484: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal tegular apophysis; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

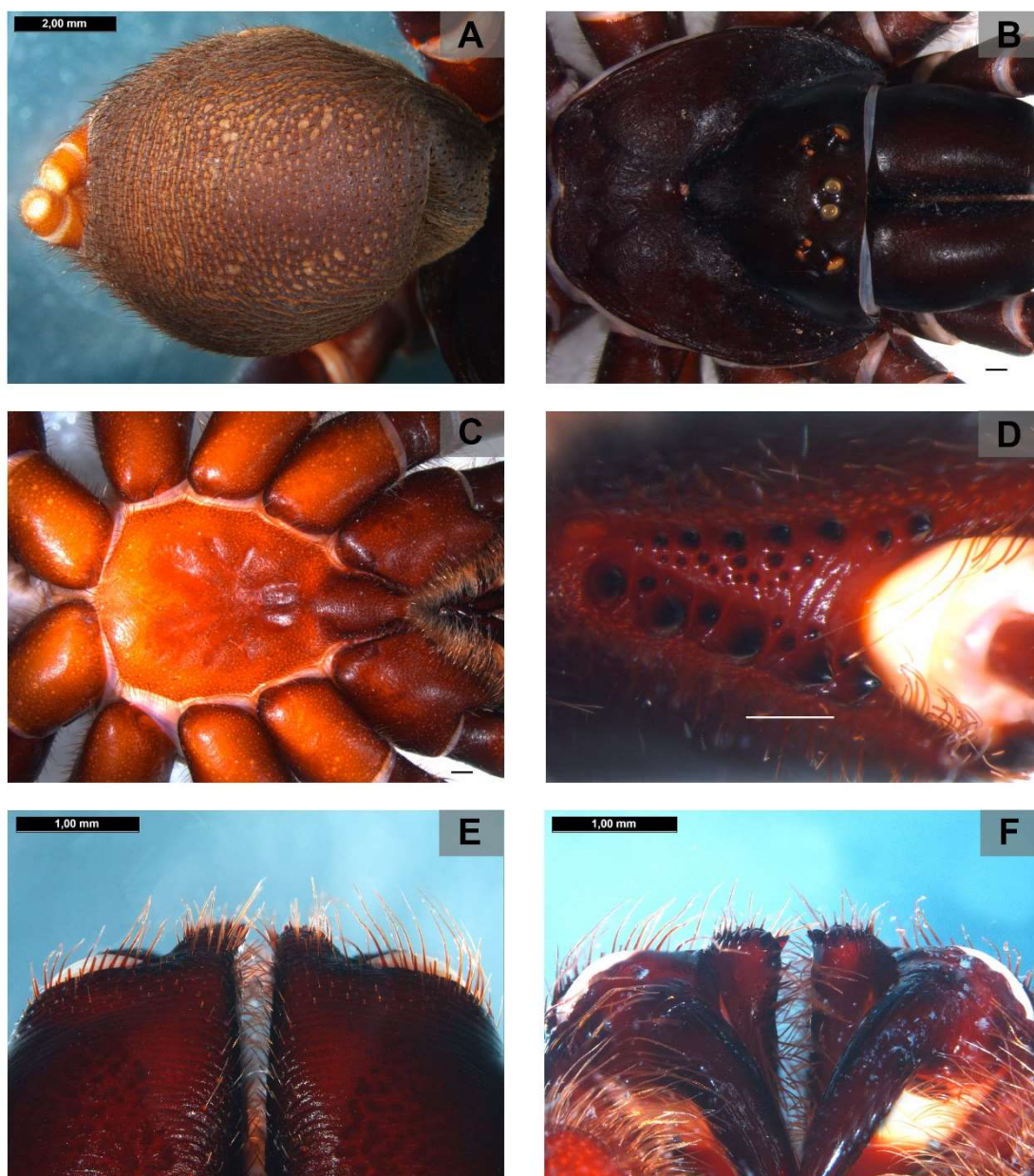


FIGURE 19 – *Actinopus fractus* Mello-Leitão, 1920, male: A-F IBSP 114535: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

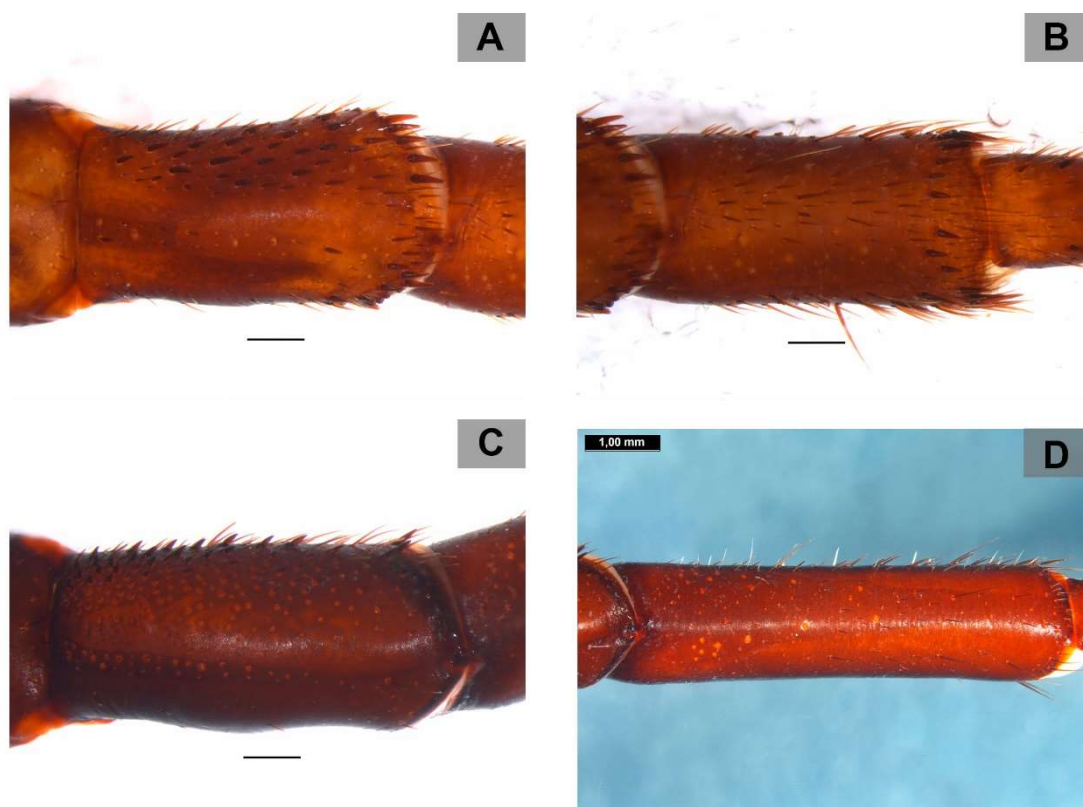


FIGURE 20 – *Actinopus fractus* Mello-Leitão, 1920, male: A-D IBSP 114535: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

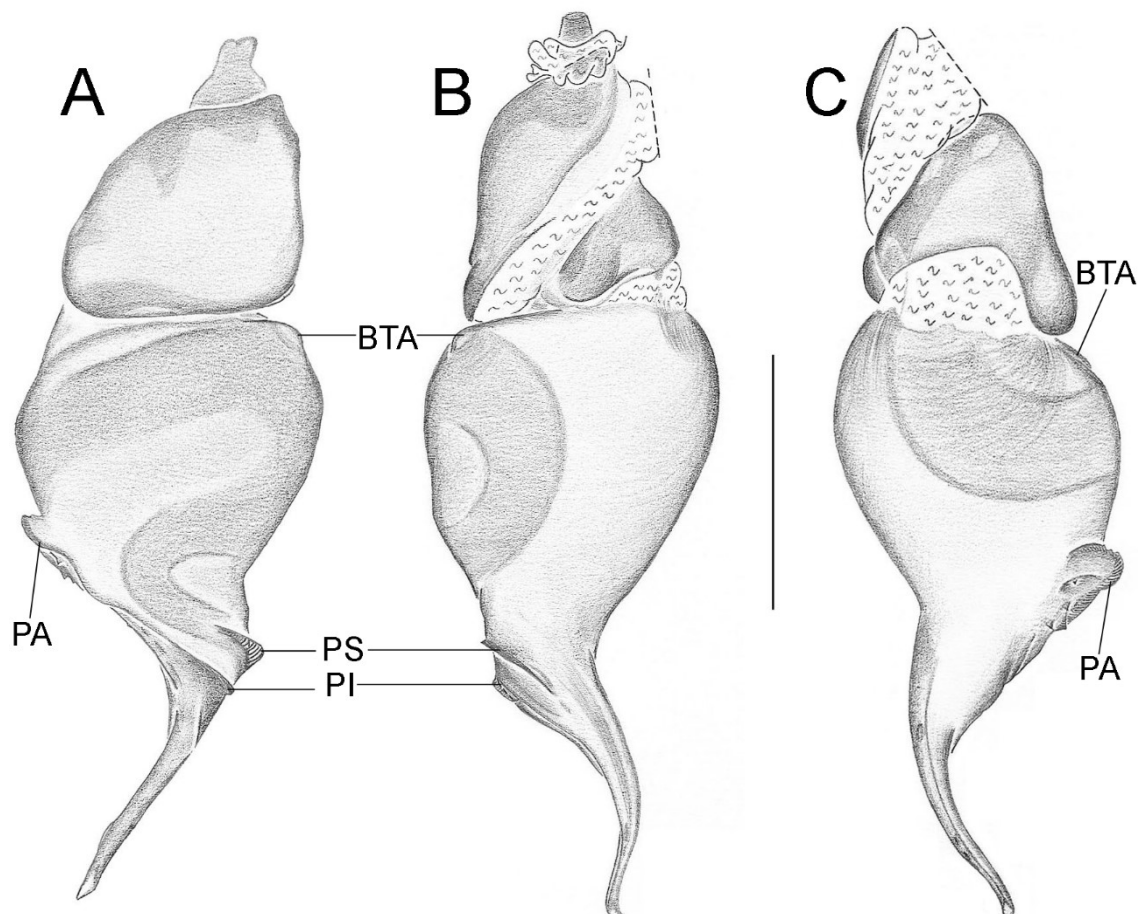


FIGURE 21 – *Actinopus fractus* Mello-Leitão, 1920, male: A–C IBSP 14535: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal tegular apophysis; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel. Scale line: 1 mm.

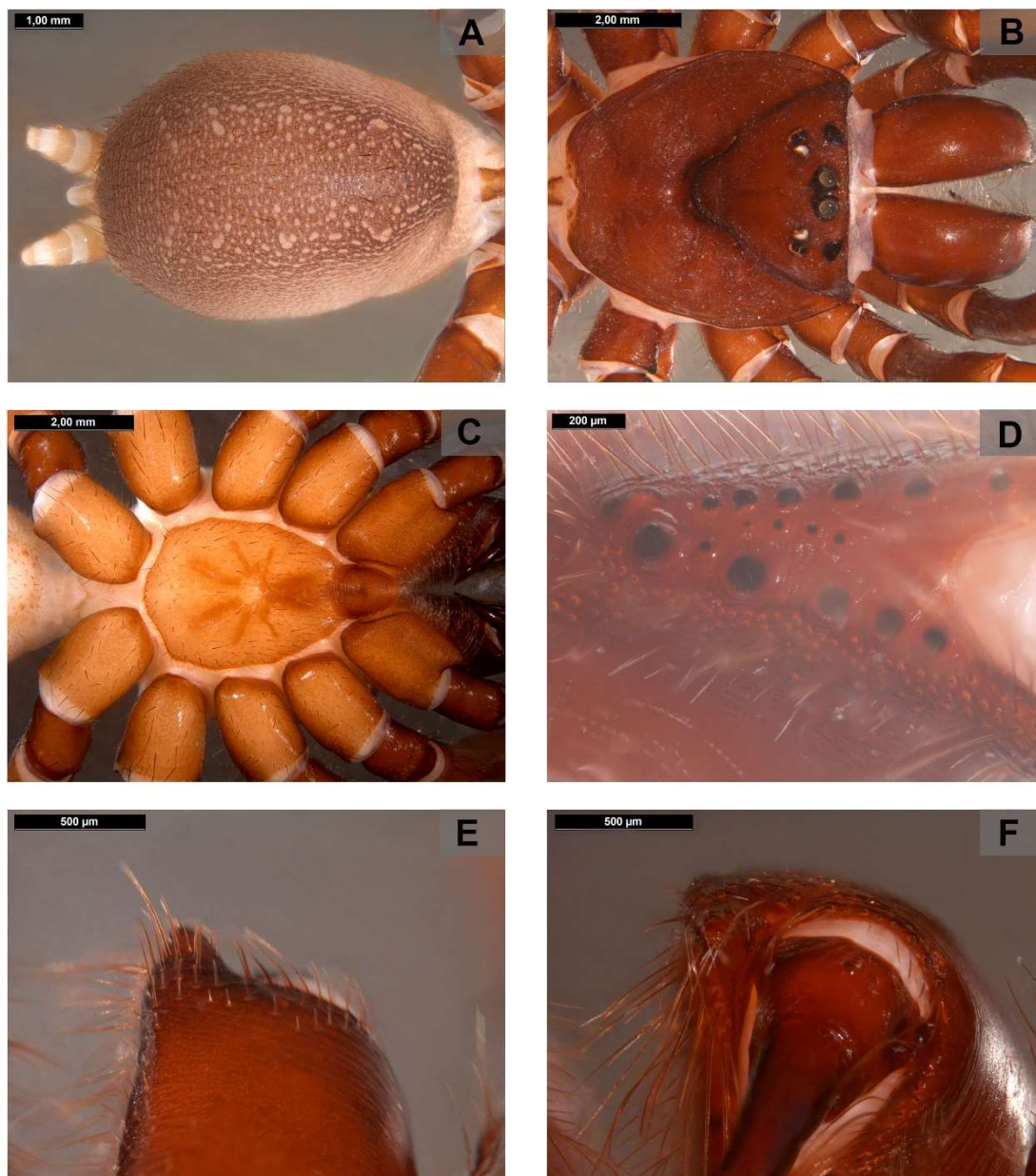


FIGURE 22 – *Actinopus obidos* n. sp., holotype, male: A-F MPEG 22274: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

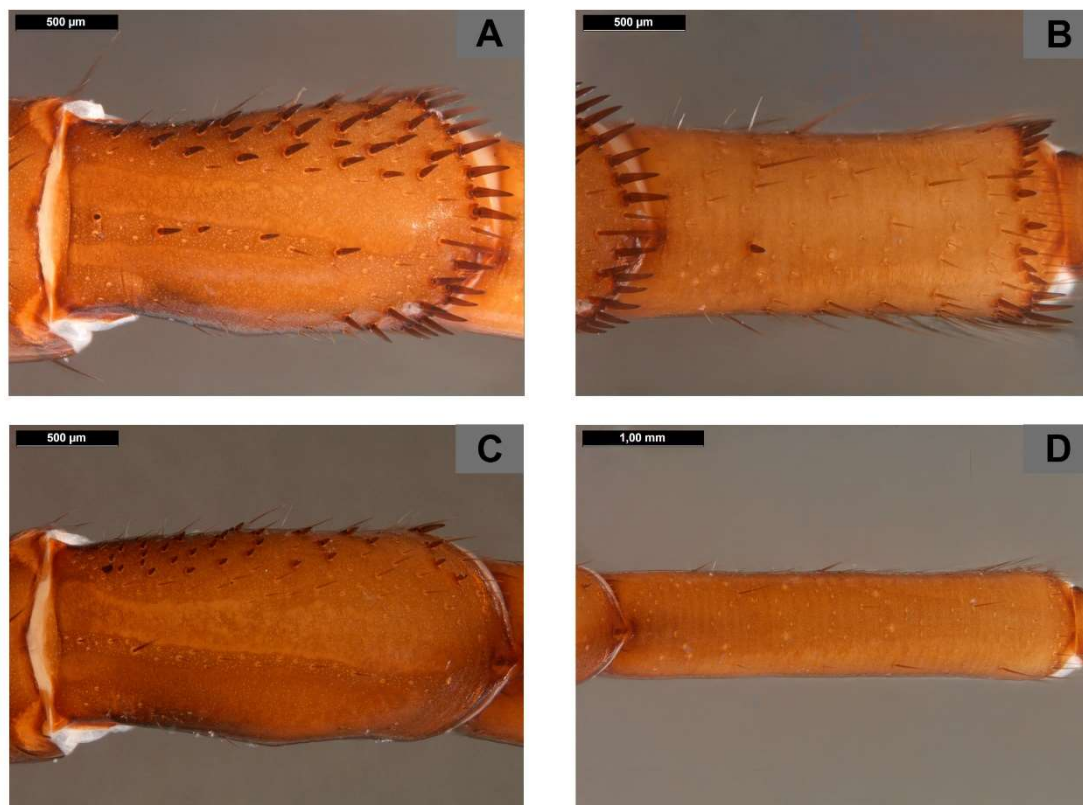


FIGURE 23 – *Actinopus obidos* n. sp., holotype, male: A-D MPEG 22274: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

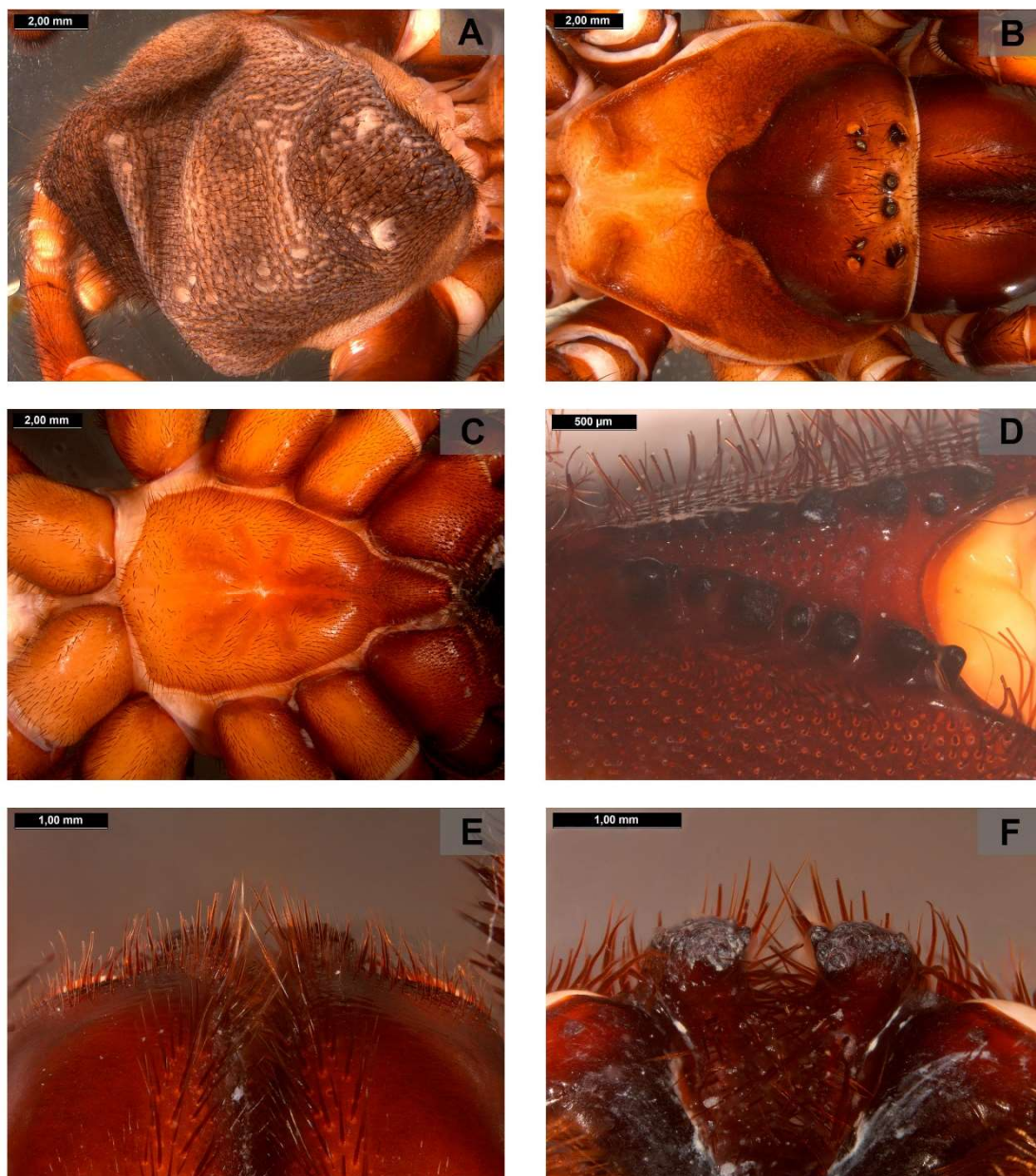


FIGURE 24 – *Actinopus obidos* n. sp., paratype, female: A-F MPEG 22273: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

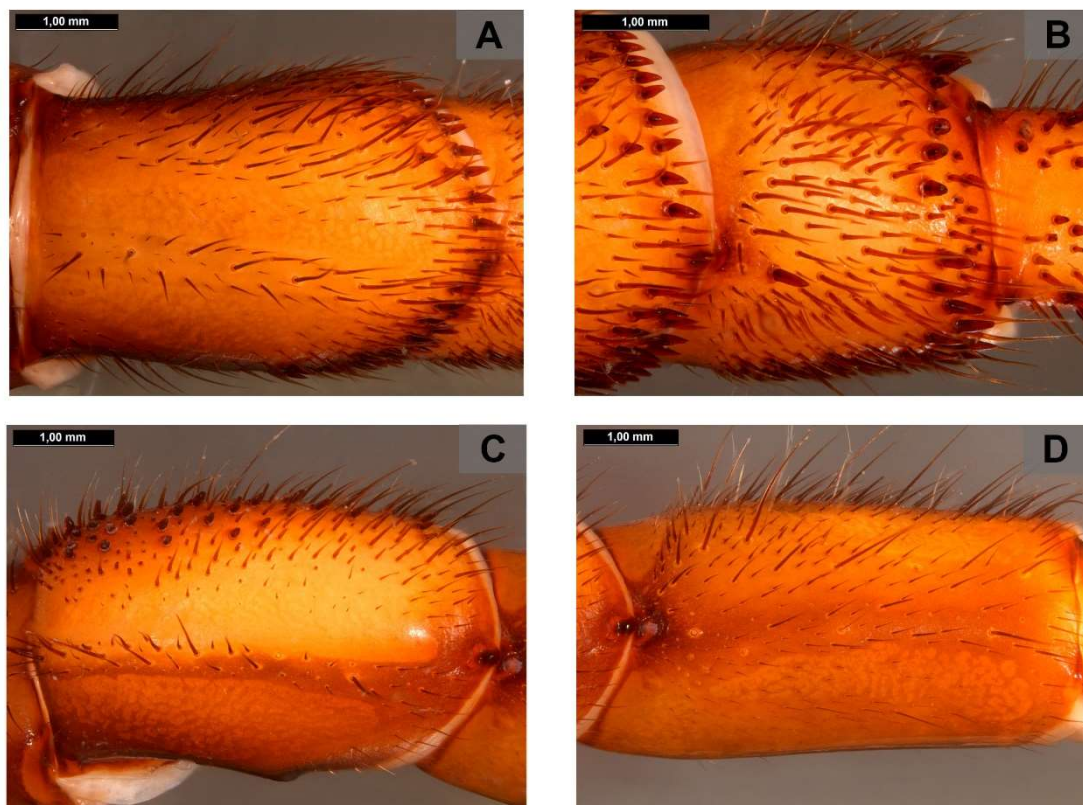


FIGURE 25 – *Actinopus obidos* n. sp., paratype, female: A-D MPEG 22273: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

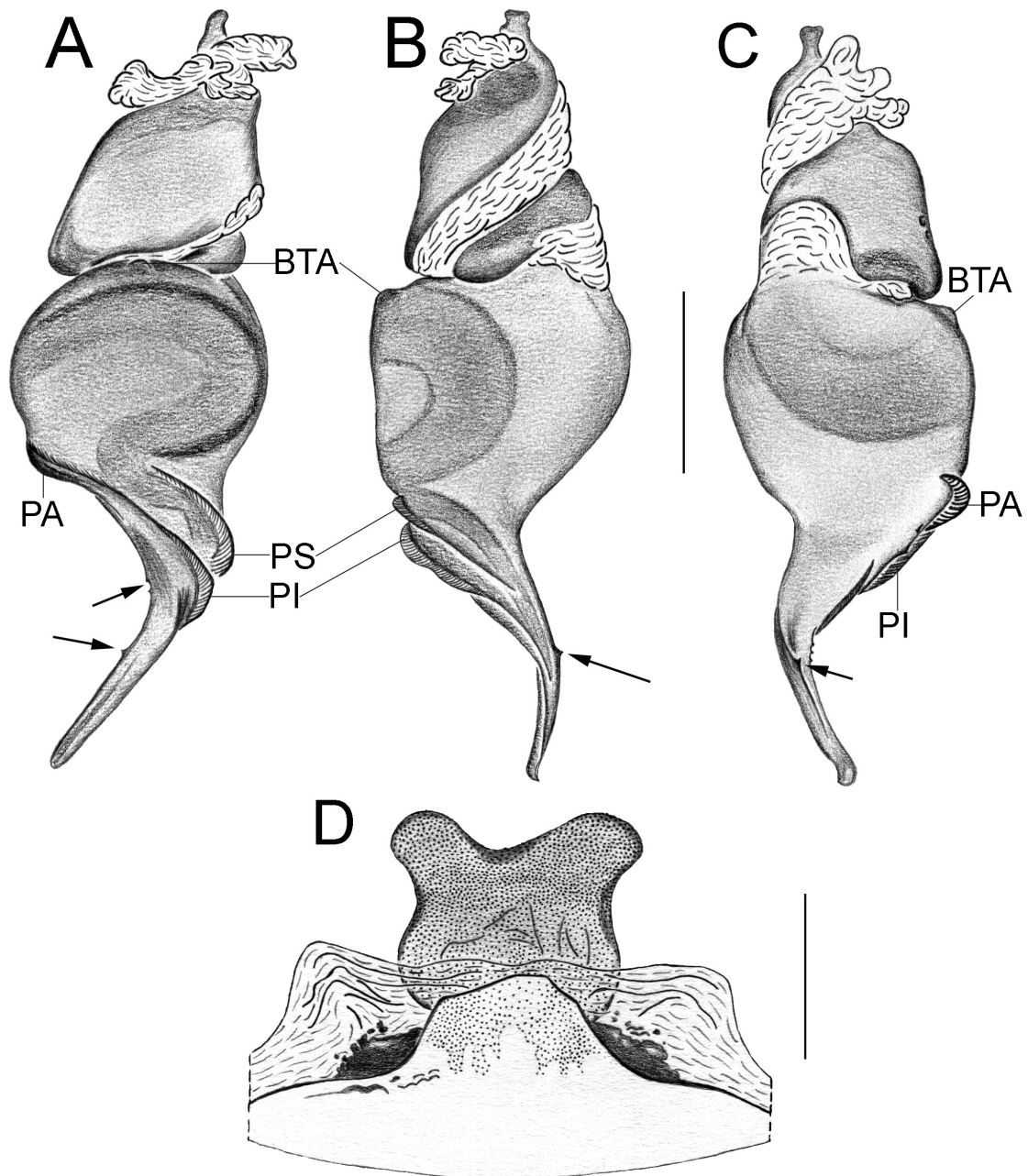


FIGURE 26 – *Actinopus obidos* n. sp., male: A–C MPEG 22274: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated Area. Paratype, female: D MPEG 22273: D. Spermathecae, dorsal view. Scale line: Male: 0.5mm; and female 1 mm.

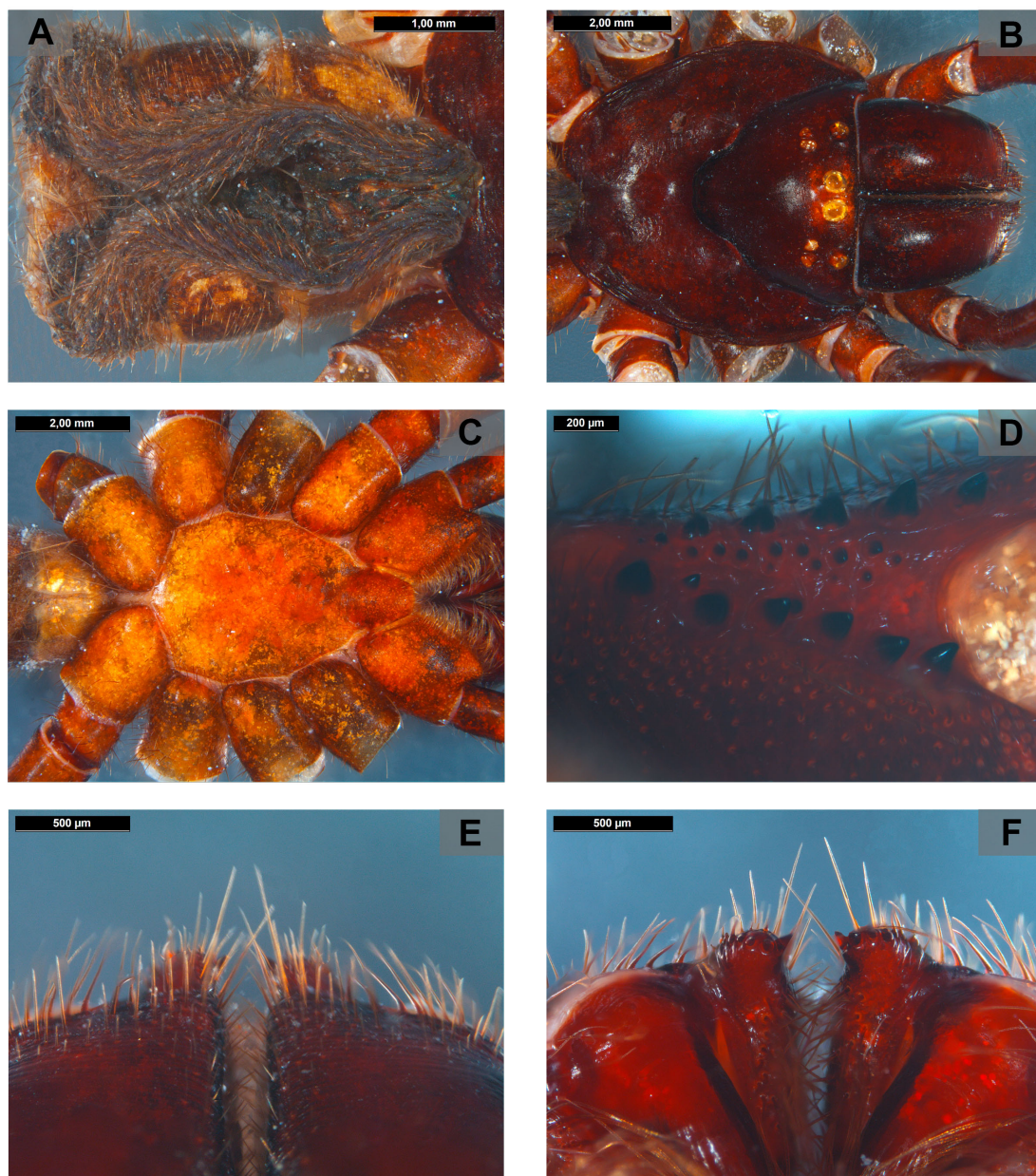


FIGURE 27 – *Actinopus buritiensis* n. sp., holotype, male: A-F MCTP 2940: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, Dorsal; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

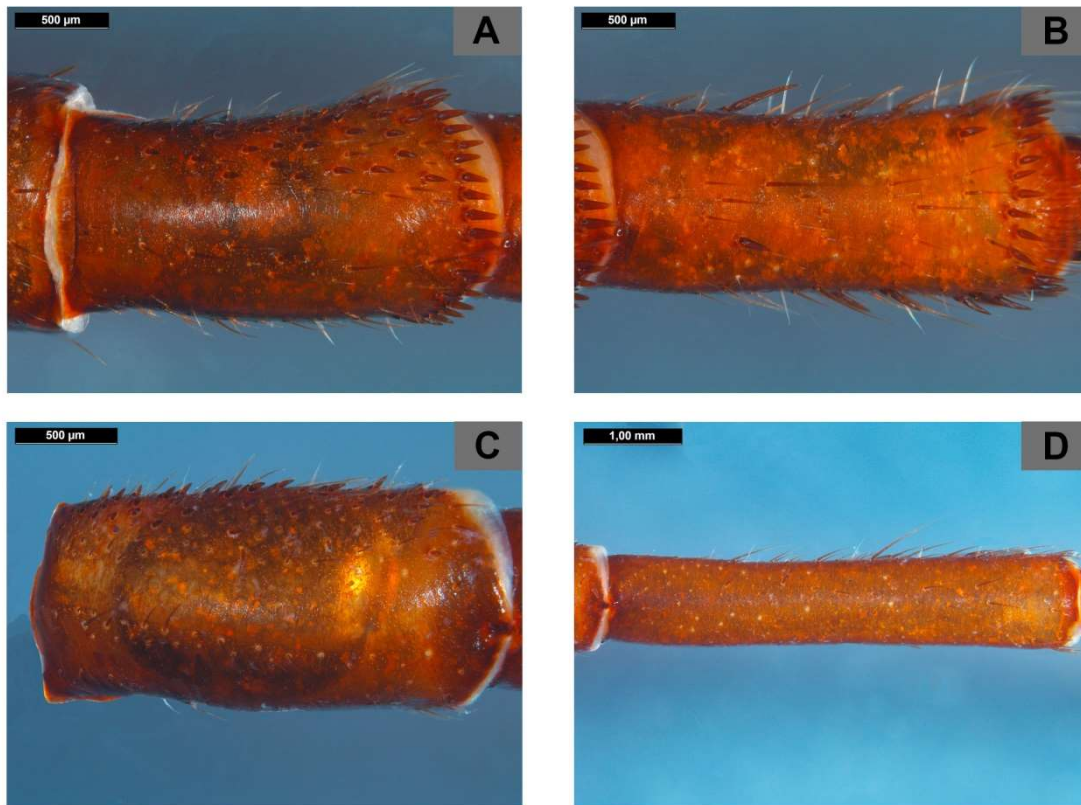


FIGURE 28 – *Actinopus buritiensis* n. sp., holotype, male: A-C MCTP 2940: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; 126. Tibia IV, dorsal.

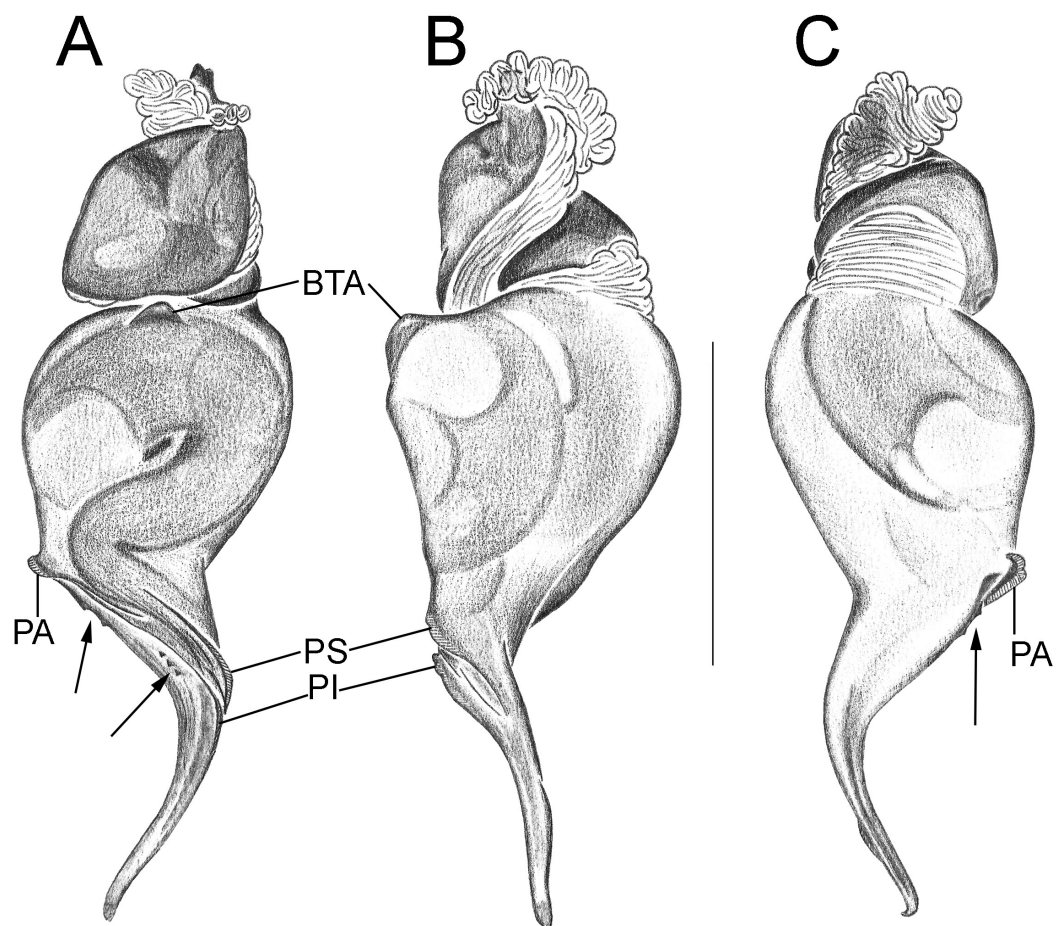


FIGURE 29 – *Actinopus buritiensis* n. sp., male: A–C MCTP 2940: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

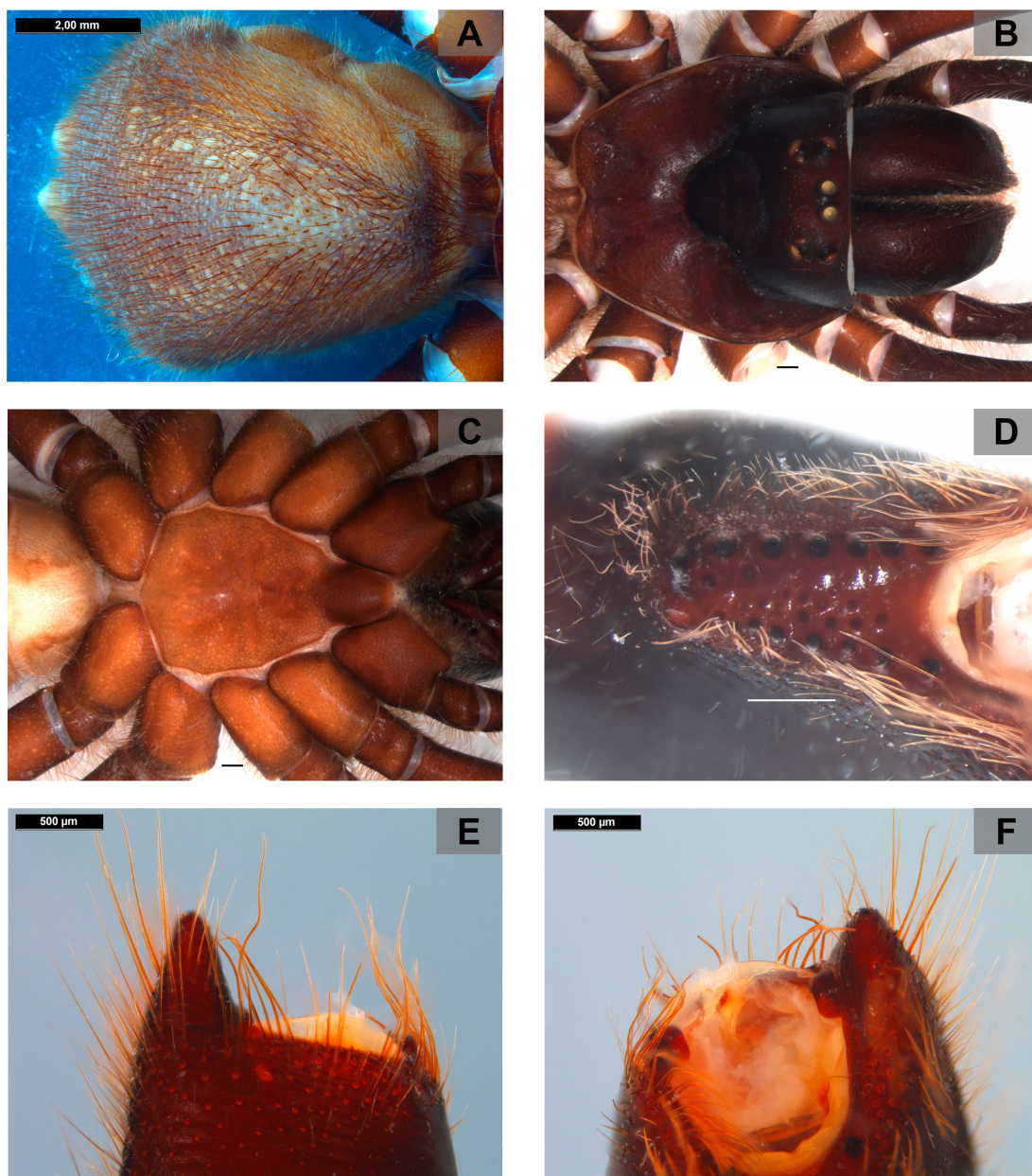


FIGURE 30 – *Actinopus pinhao* n. sp., male: A-F MZSP 14718: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.



FIGURE 31 – *Actinopus pinhao* n. sp., male: A-D MZSP 14718: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

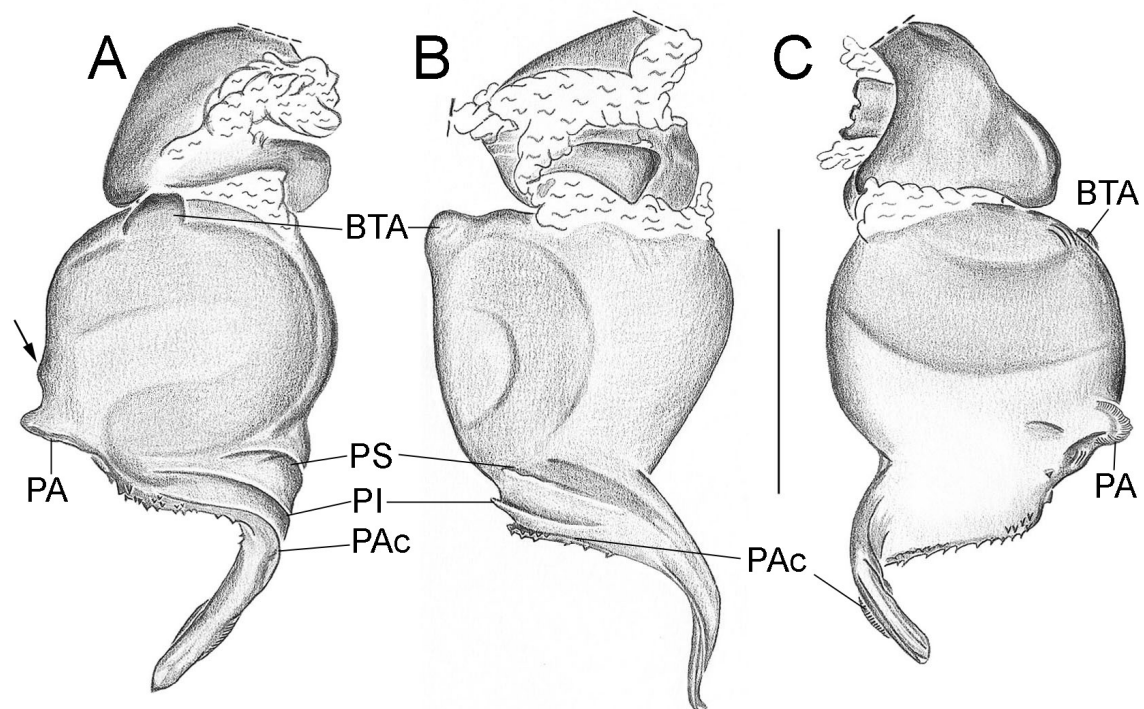


FIGURE 32 – *Actinopus pinhao* n. sp., male: A–C MZSP 14718: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrow: Swelling. Scale line: 1 mm.

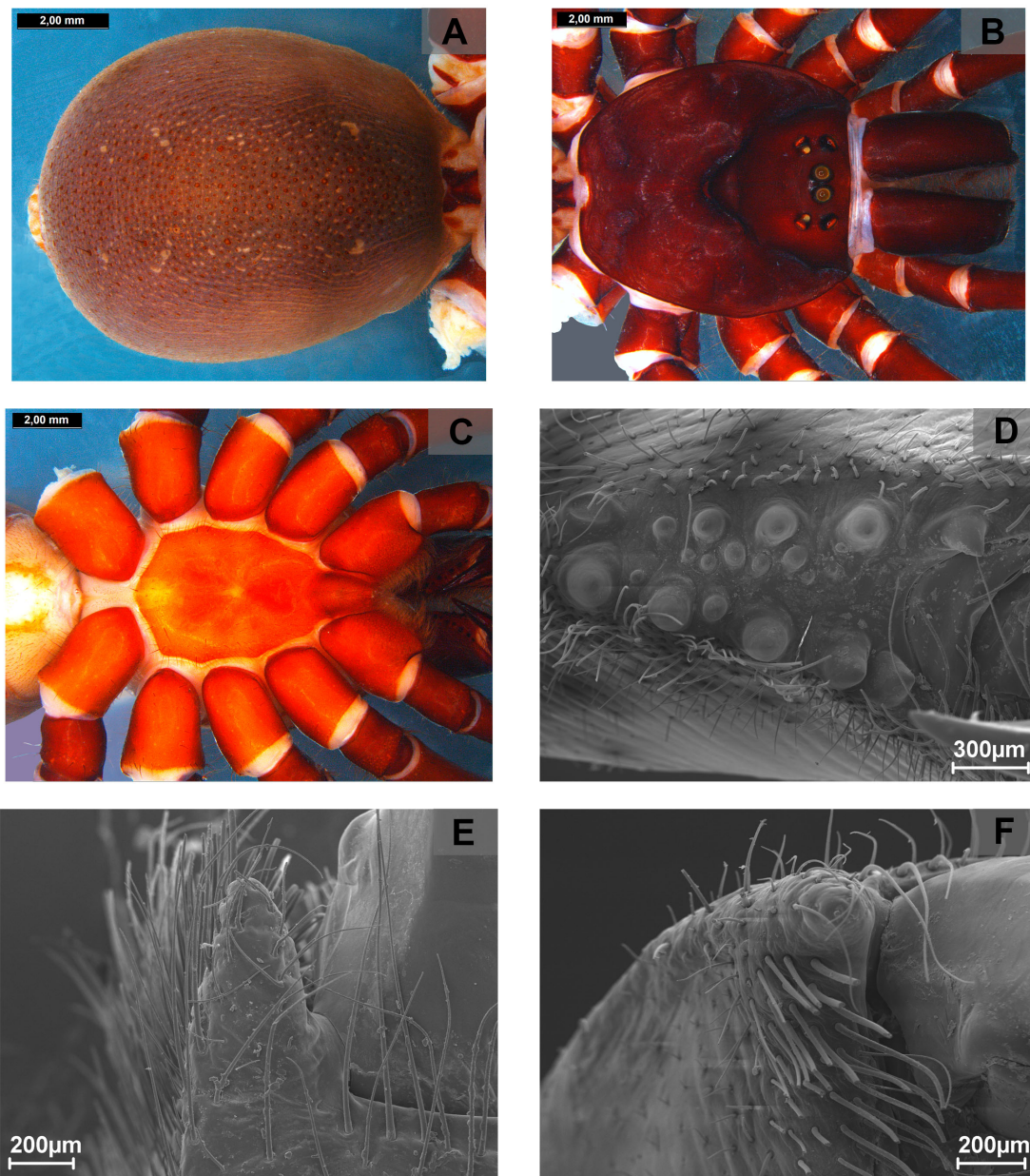


FIGURE 33 – *Actinopus ducke* n. sp., male: A–F MCN 24987 (Automontage photos) and INPA 6124 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

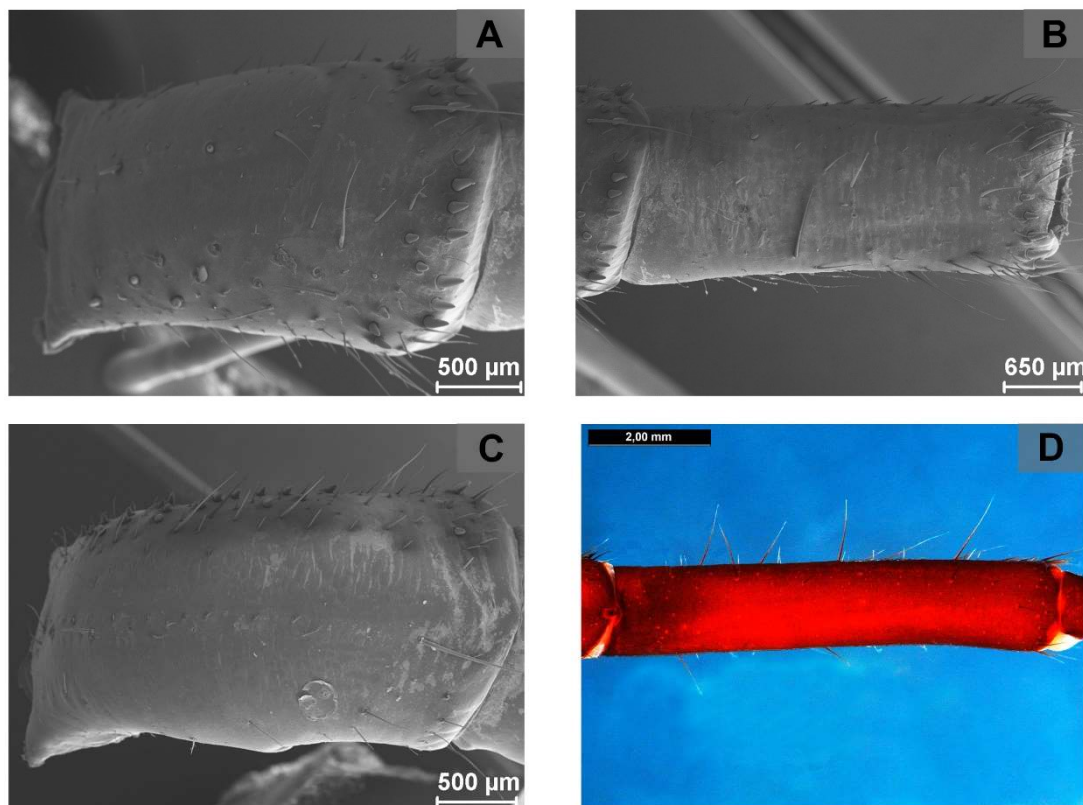


FIGURE 34 – *Actinopus ducke* n. sp., male: A–C MCN 24987 (Automontage photos) and INPA 6124 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; 152. Tibia IV, dorsal.

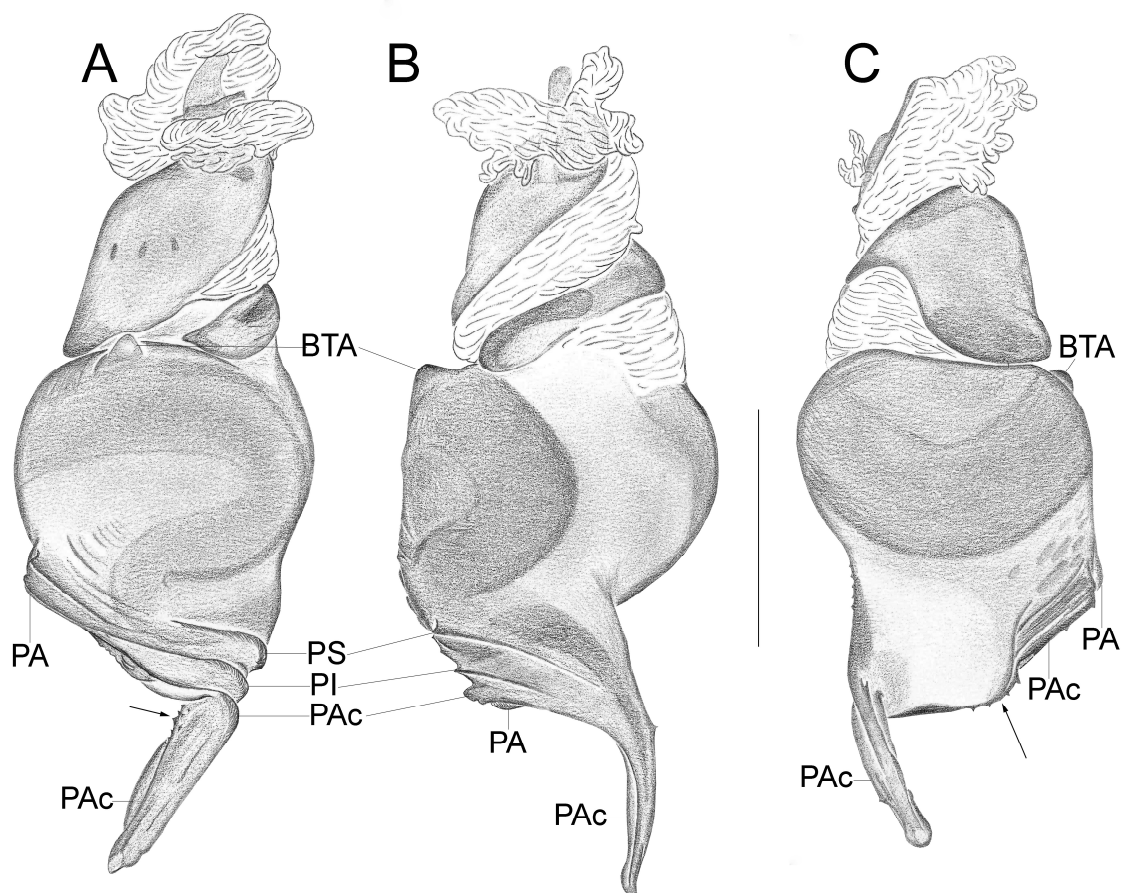


FIGURE 35 – *Actinopus ducke* n. sp., male: A–C MCN 24987: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

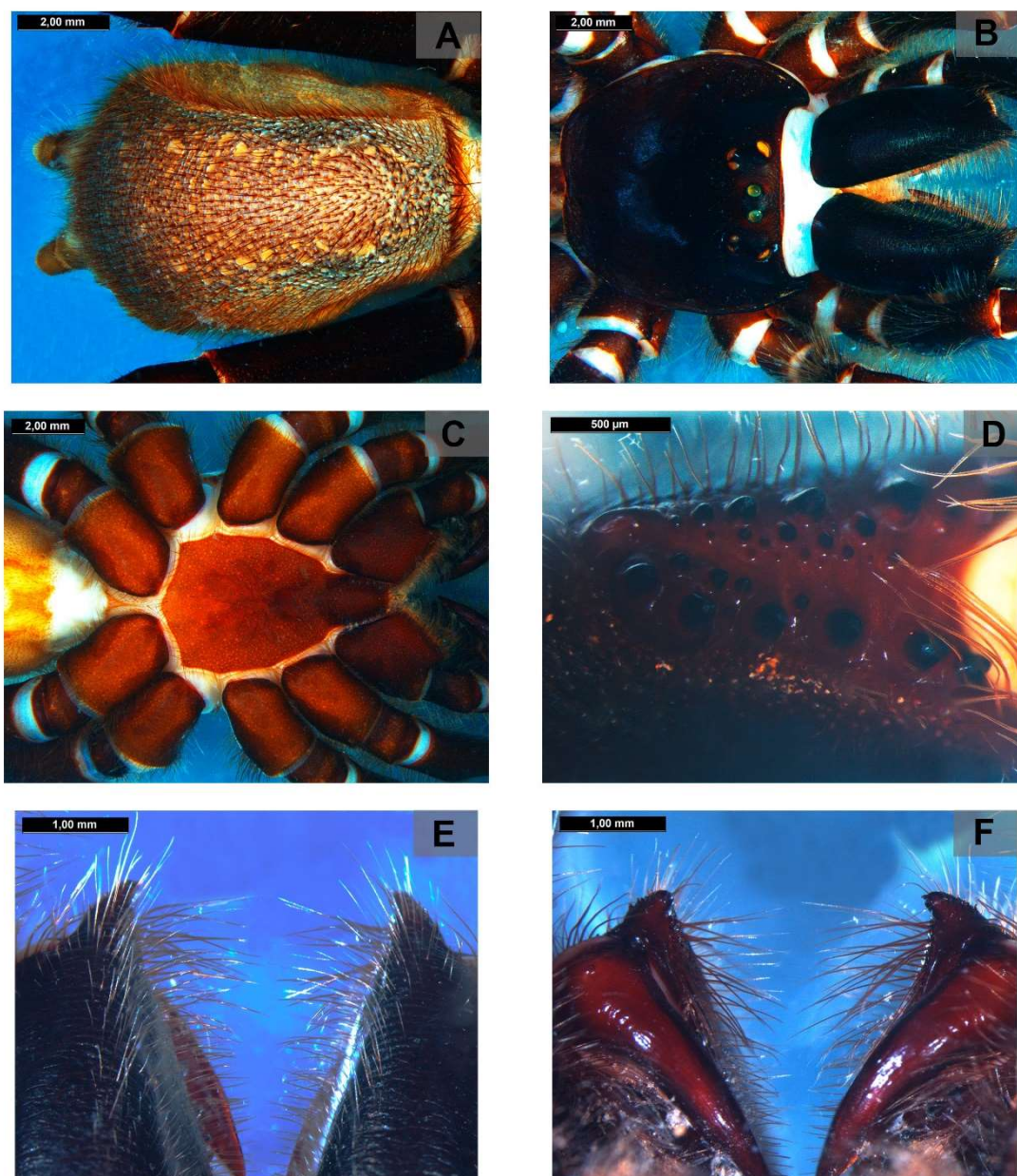


FIGURE 36 – *Actinopus hirsutus* n. sp., male: A-F MCN: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

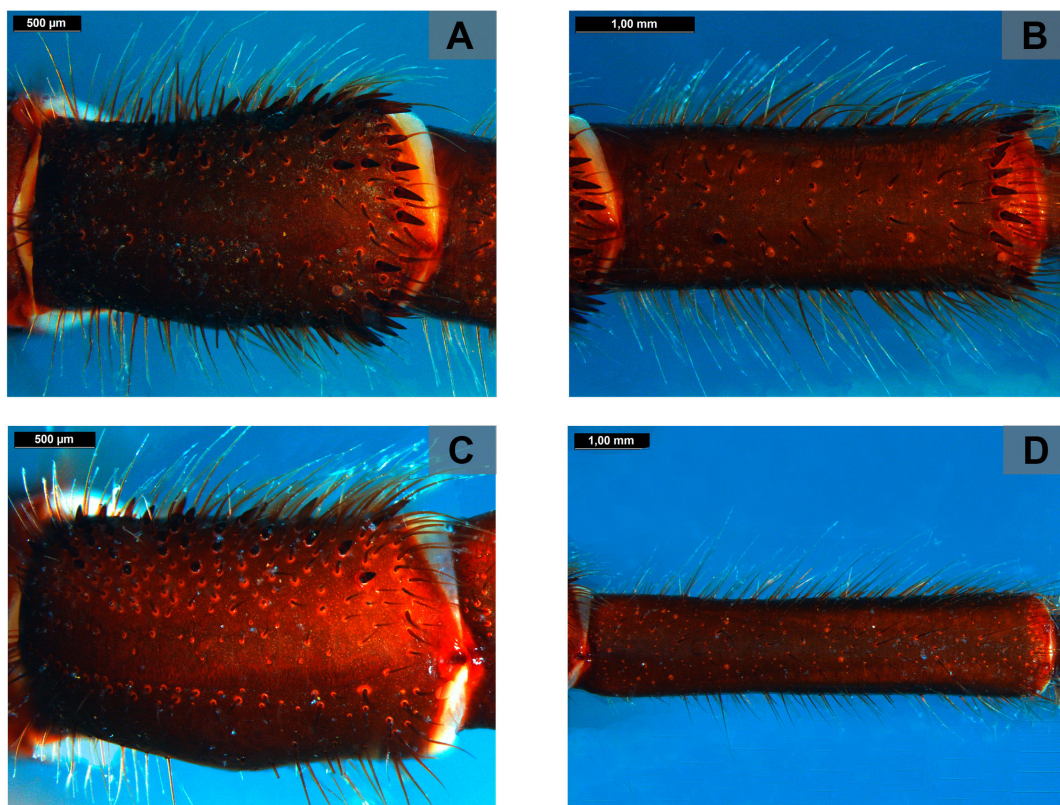


FIGURE 37 – *Actinopus hirsutus* n. sp., male: A-D MCN: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

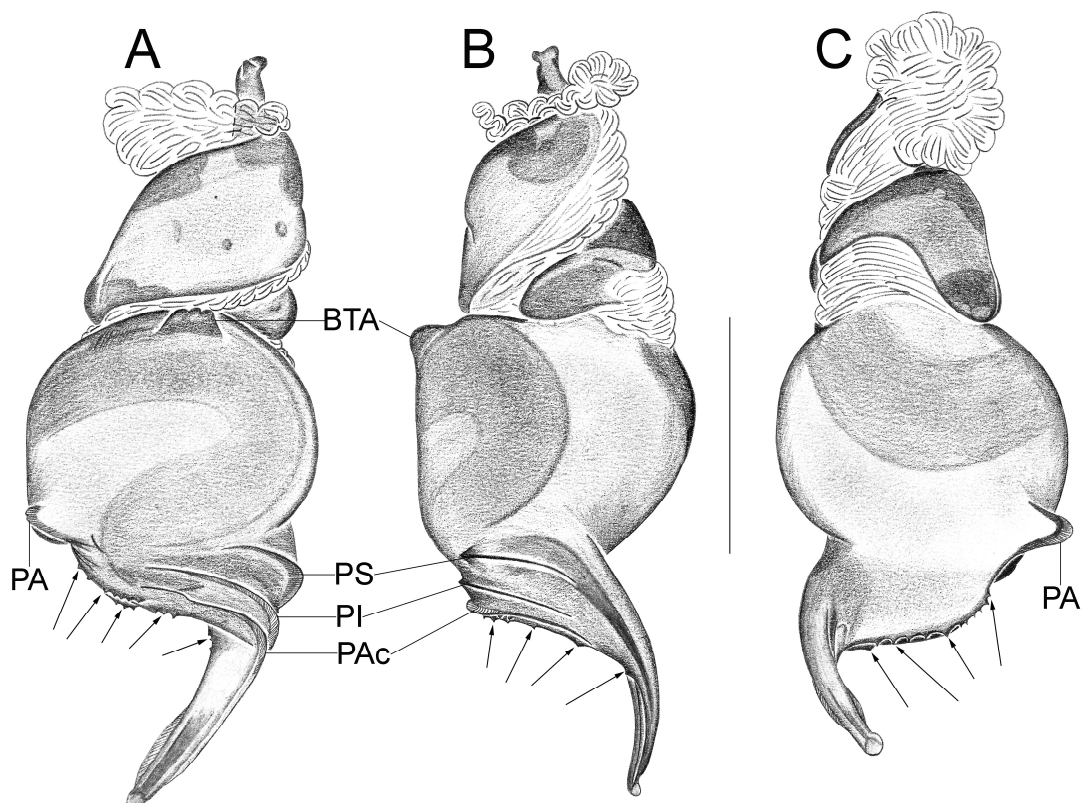


FIGURE 38 – *Actinopus hirsutus* n. sp., male: A–C MCN: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PAc** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

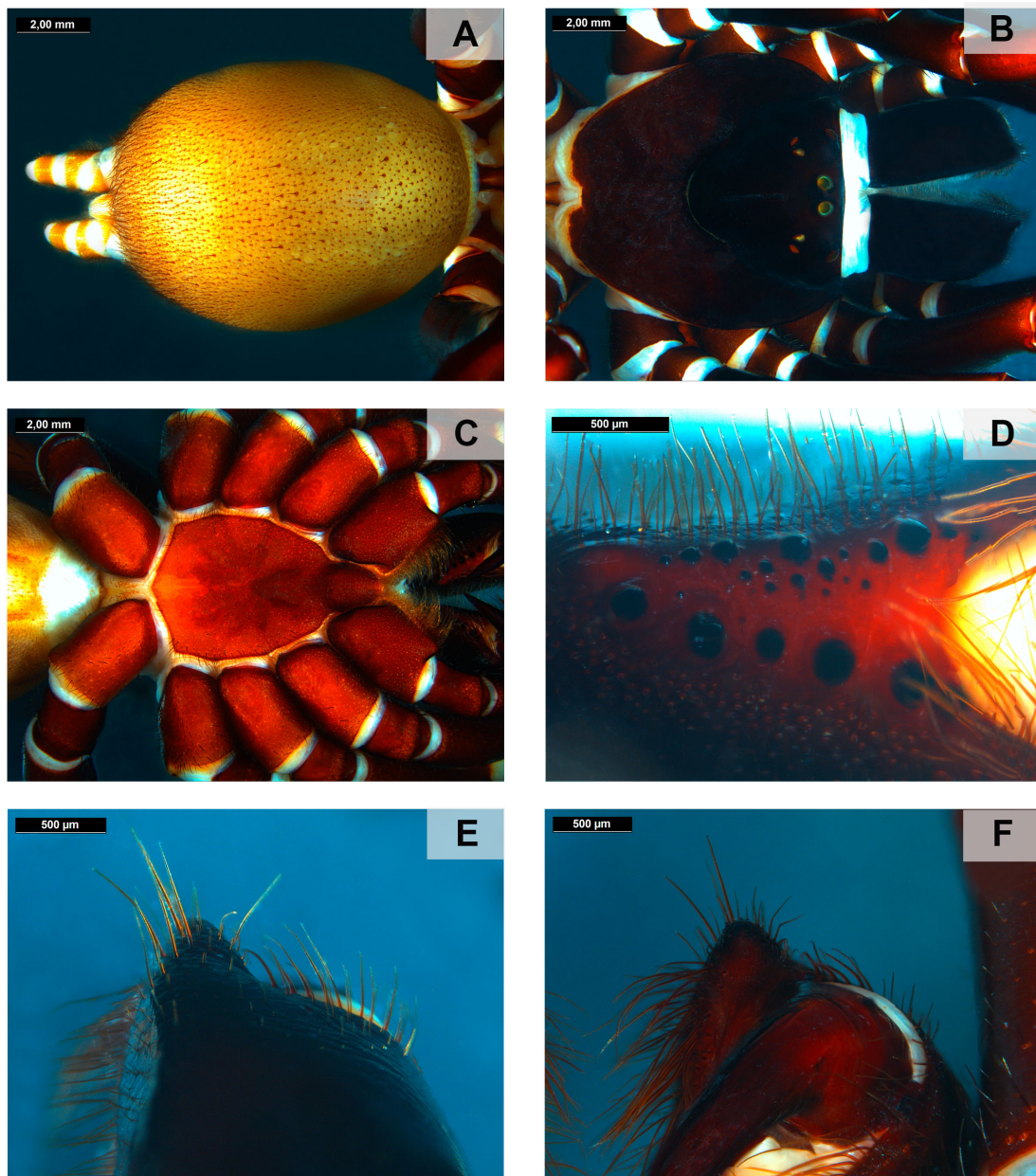


FIGURE 39 – *Actinopus jaboticatubas* n. sp., male: A-F IBSP 113186: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

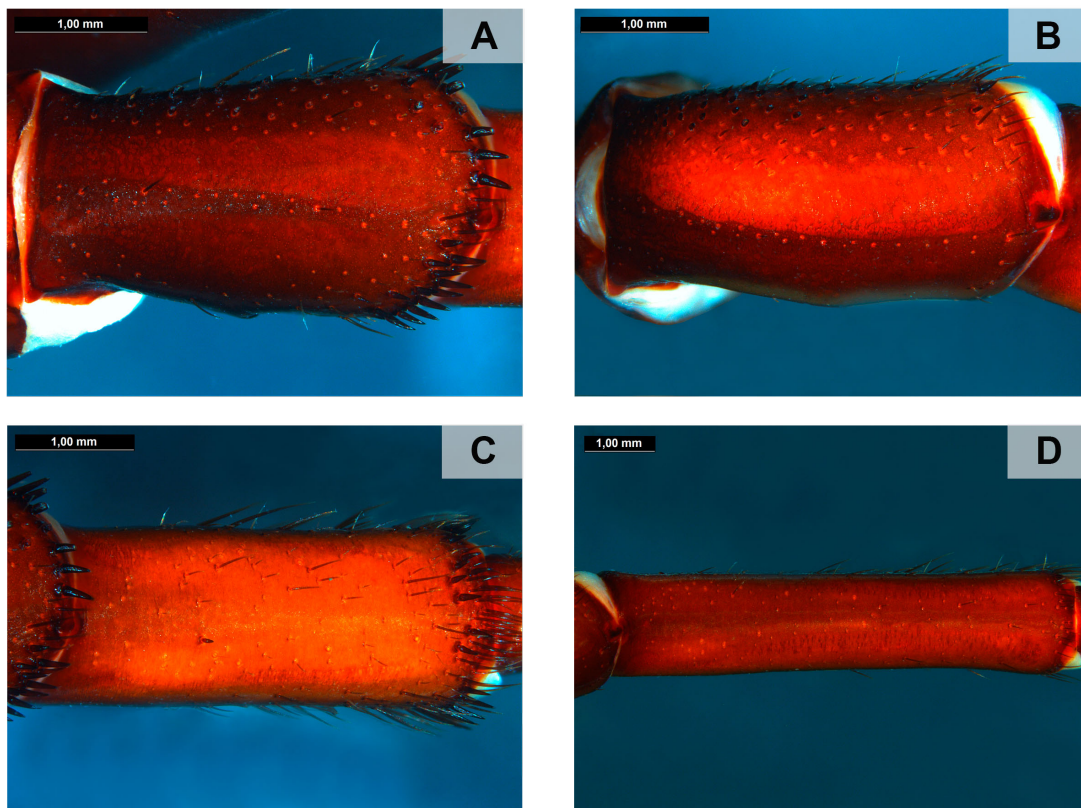


FIGURE 40 – *Actinopus jaboticatubas* n. sp., male: A-D IBSP 113186: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

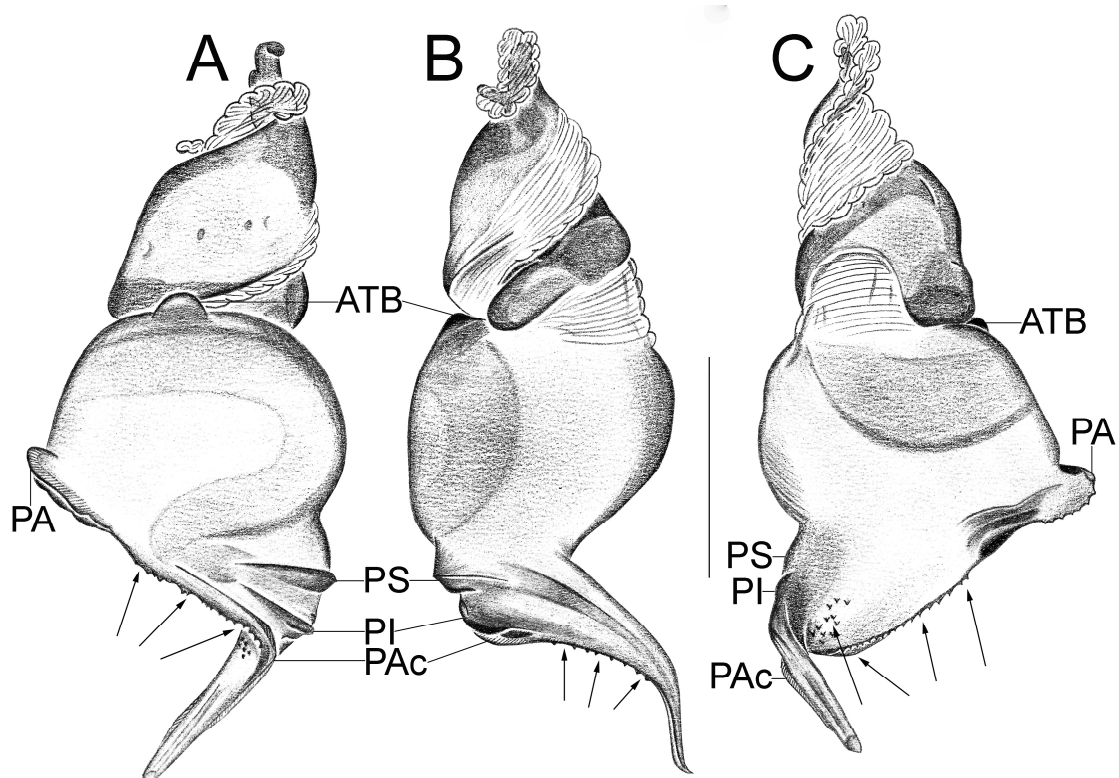


FIGURE 41 – *Actinopus jaboticatubas* n. sp., male: A–C IBSP 113186: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **ATB** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

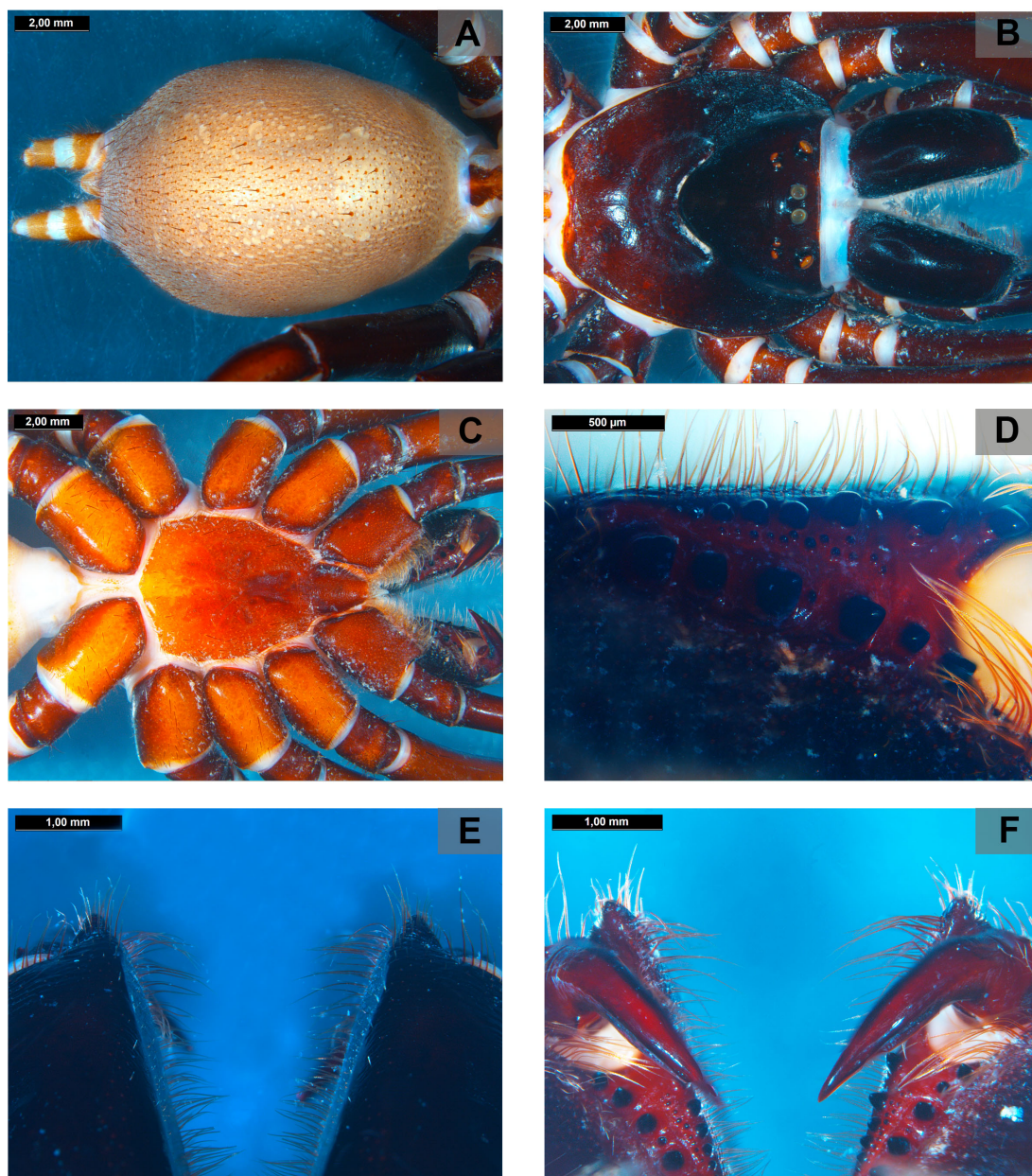


FIGURE 42 – *Actinopus confusus* n. sp., male: A-F CHNUFPI 234: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Chelicerate teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

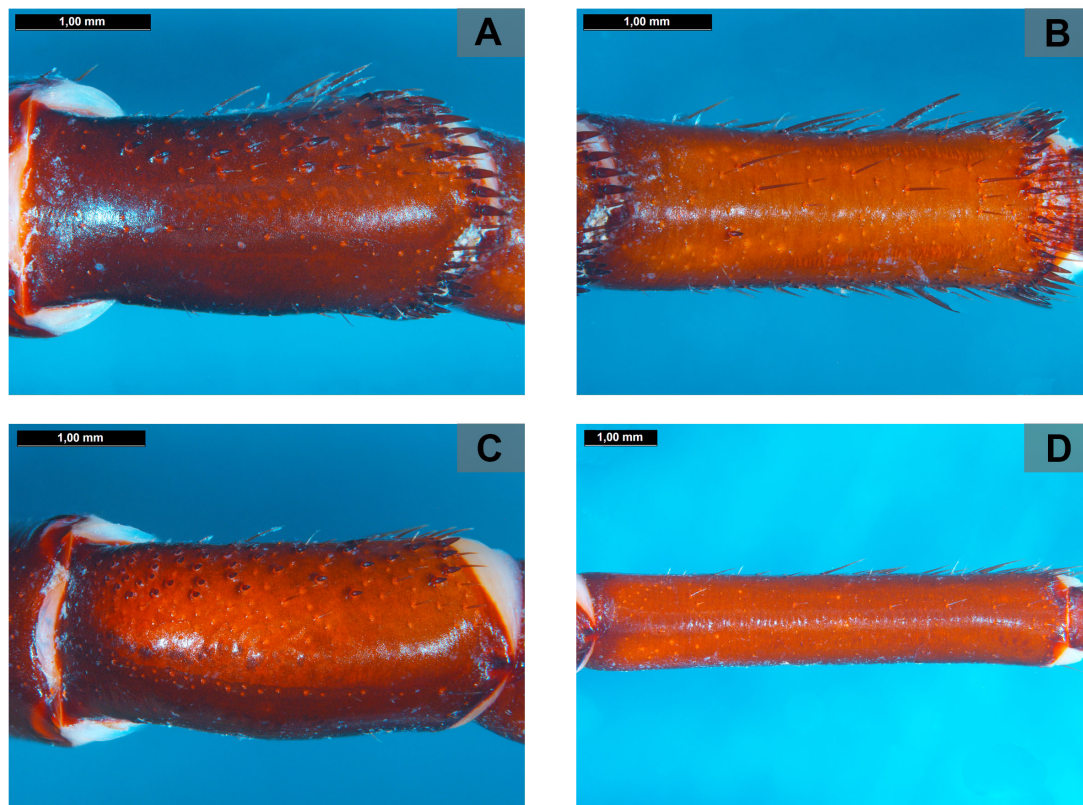


FIGURE 43 – *Actinopus confusus* n. sp., male: A-D CHNUFPI 234: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

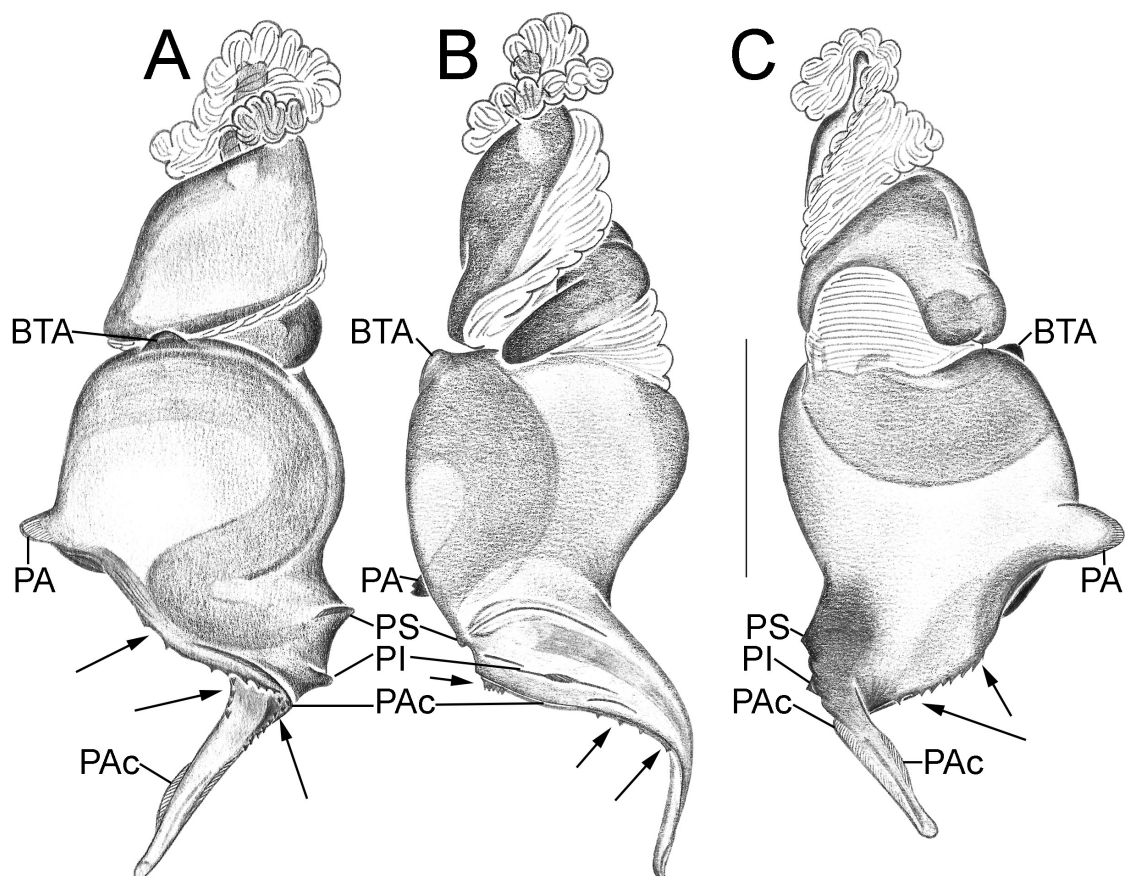


FIGURE 44 – *Actinopus confusus* n. sp., male: A–C CHNUFPI 234: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated Area. Scale line: 1 mm.

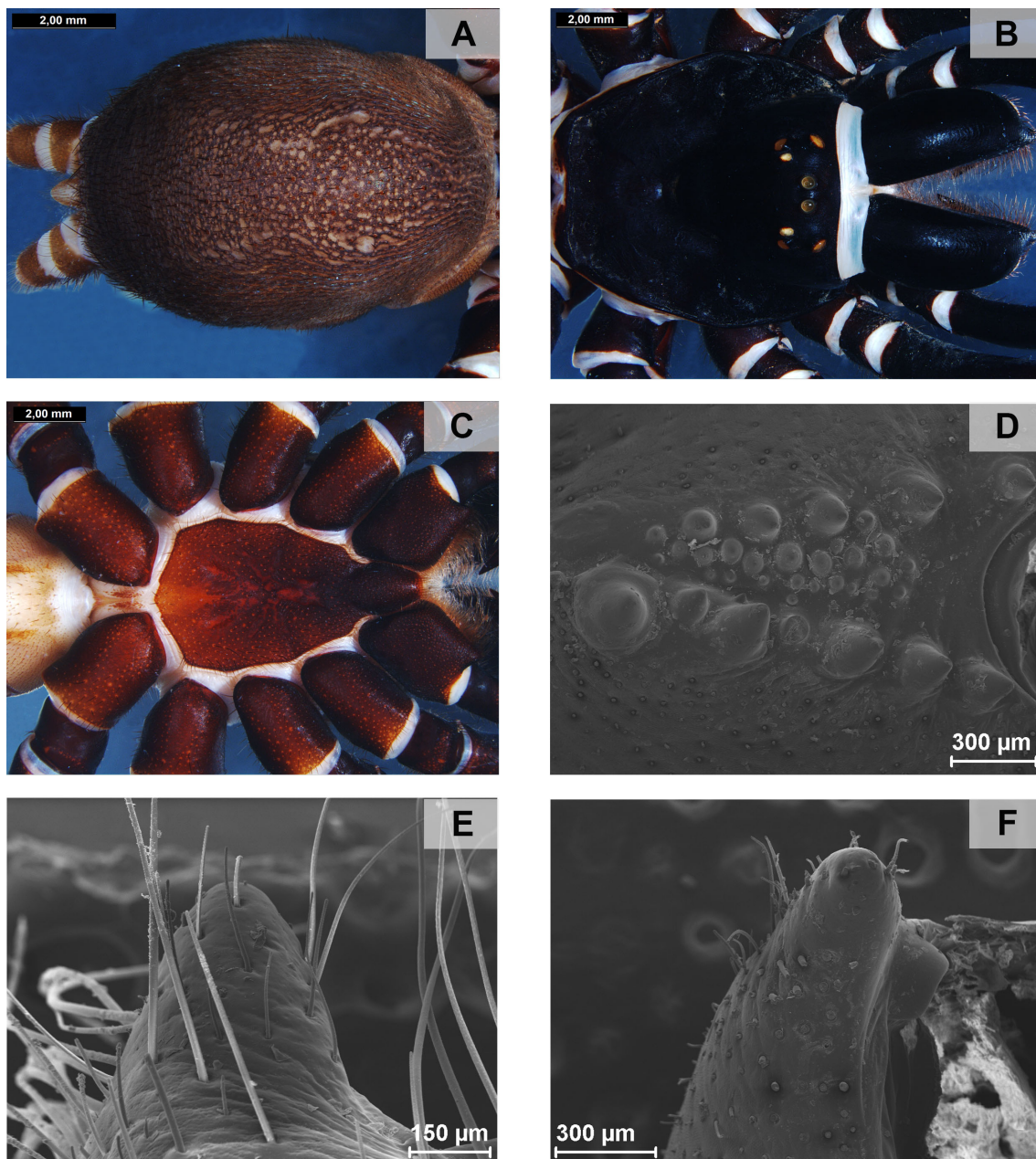
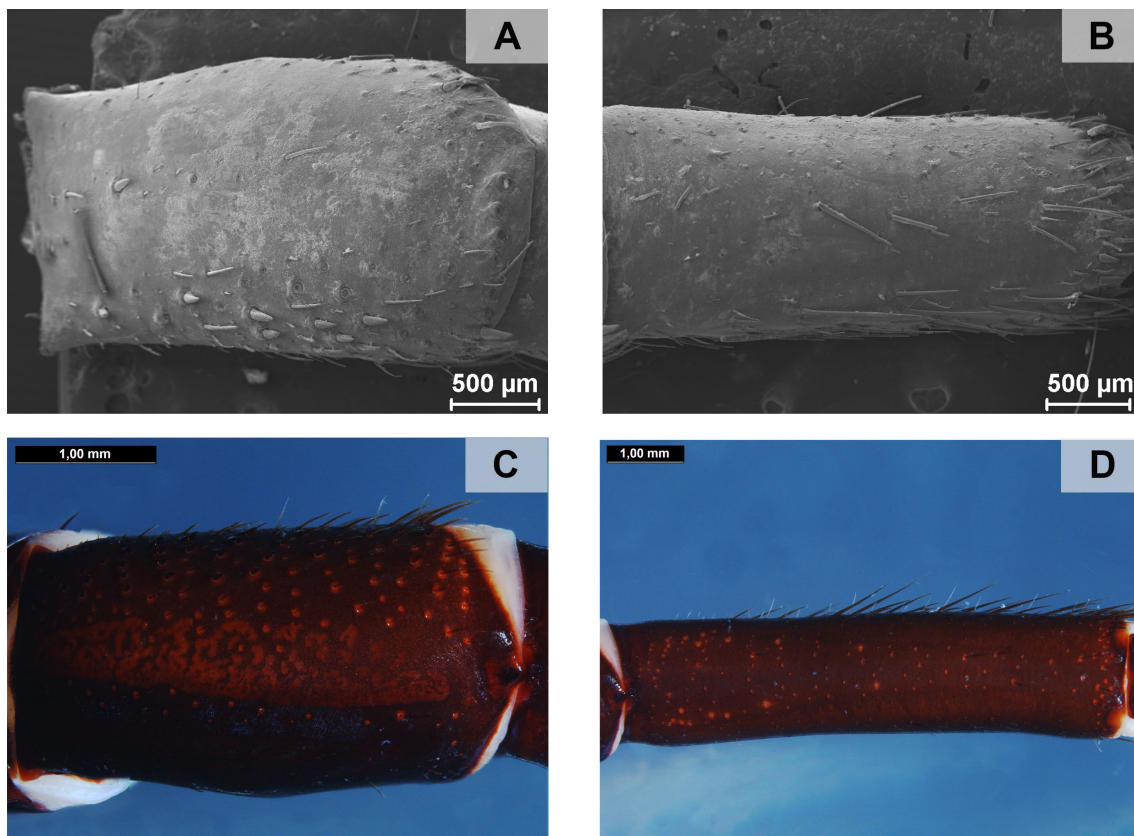


FIGURE 45 – *Actinopus pampulha* n. sp., male: A–F UFMG 5389 (Automontage photos) and IBSP 114454 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.



FIGURES 46 – *Actinopus pampulha* n. sp., male: A–D UFMG 5389 (Automontage photos) and IBSP 114454 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

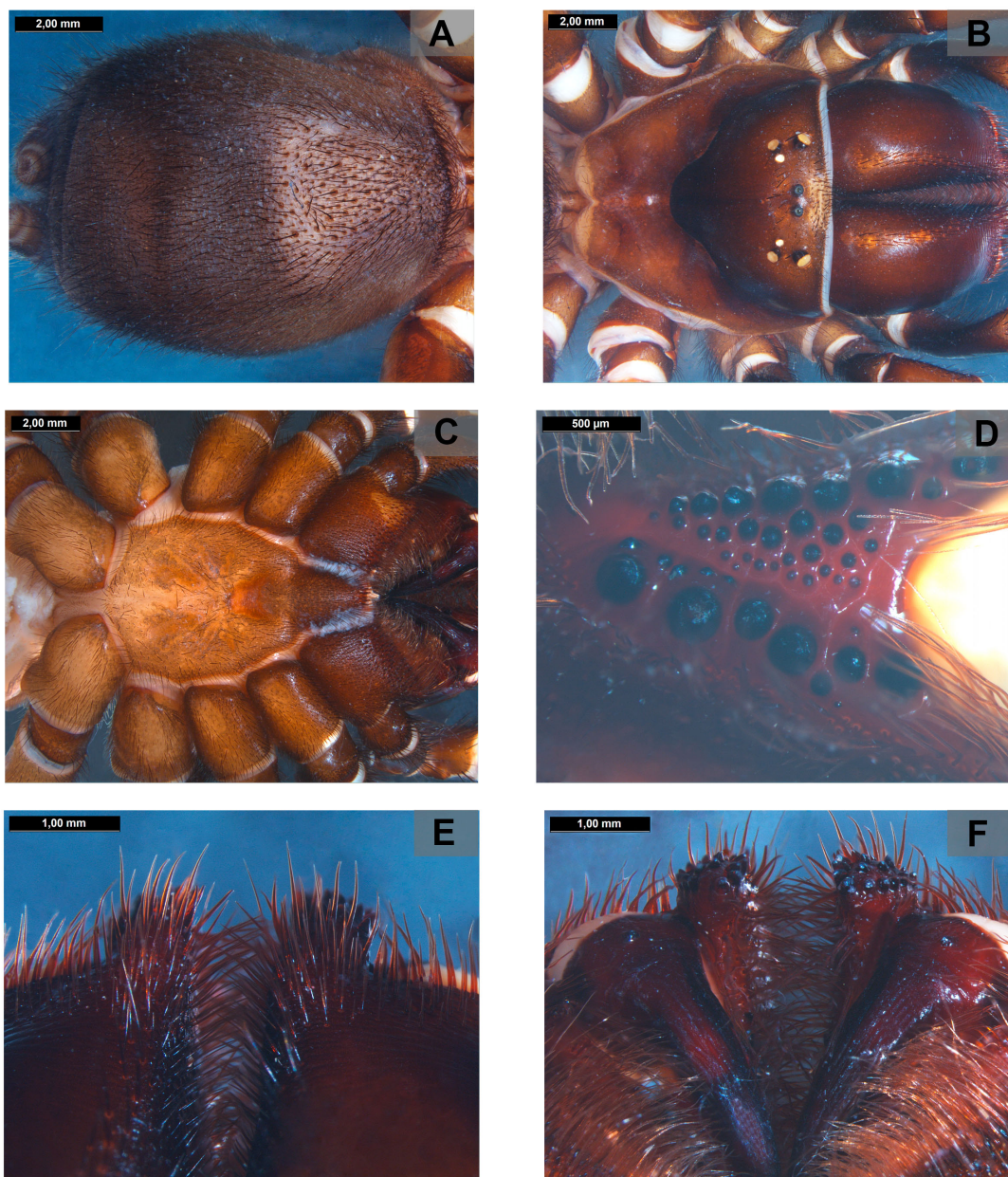


FIGURE 47 – *Actinopus pampulha* n. sp., female: A-F UFMG 6064: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

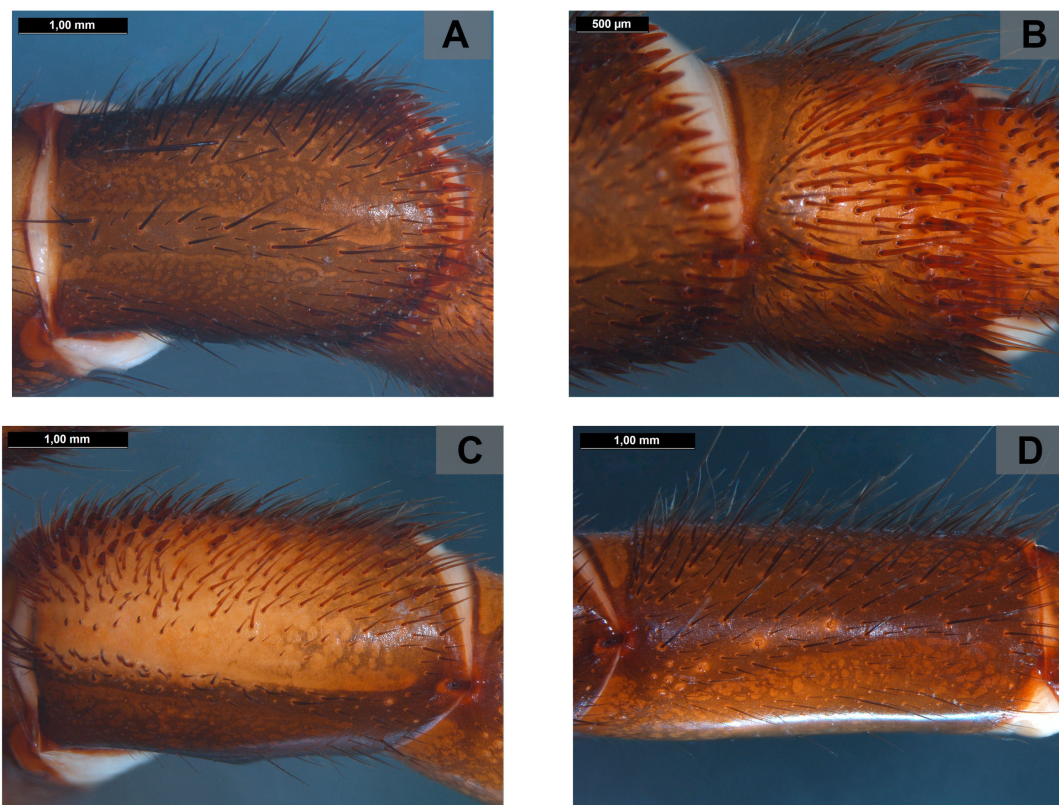


FIGURE 48 – *Actinopus pampulha* n. sp., female: A-D UFMG 6064: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

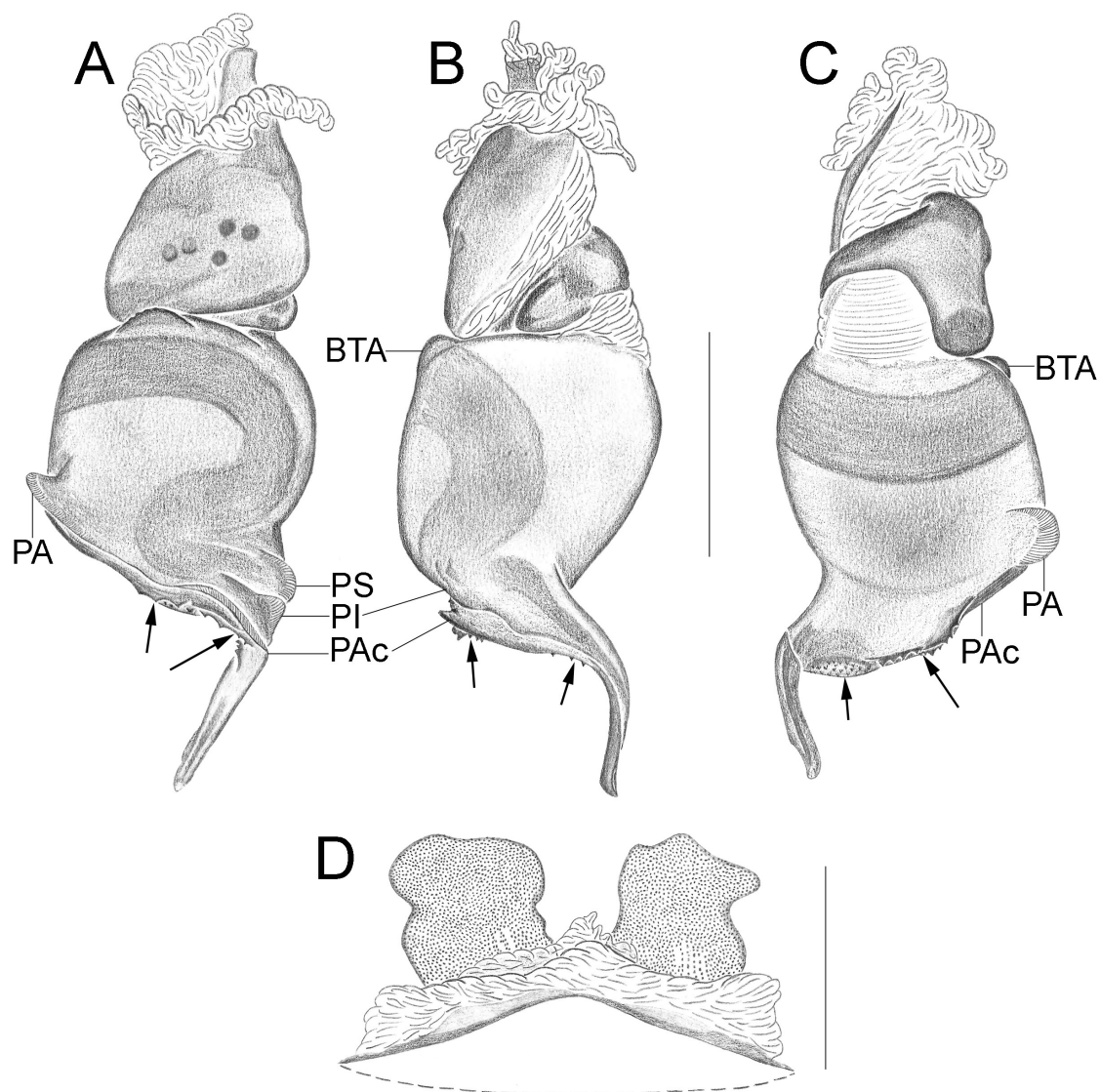


FIGURE 49 – *Actinopus pampulha* n. sp., male: A–C UFMG 5389: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D ex-UFMG 6064: D. Spermathecae, dorsal view. Scale line: 1 mm.

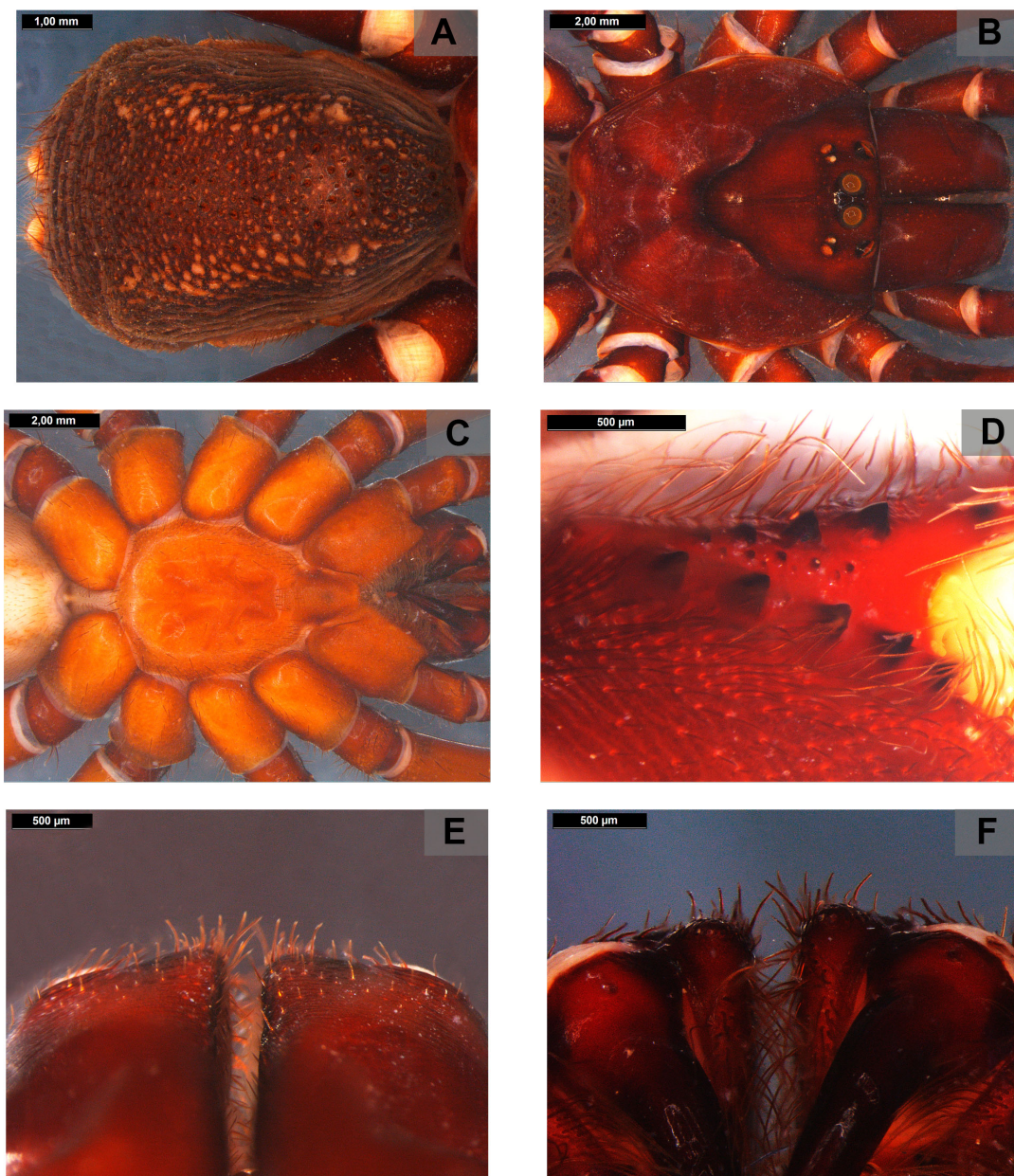


FIGURE 50 – *Actinopus candango* n. sp., male: A-F MZSP 22109: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

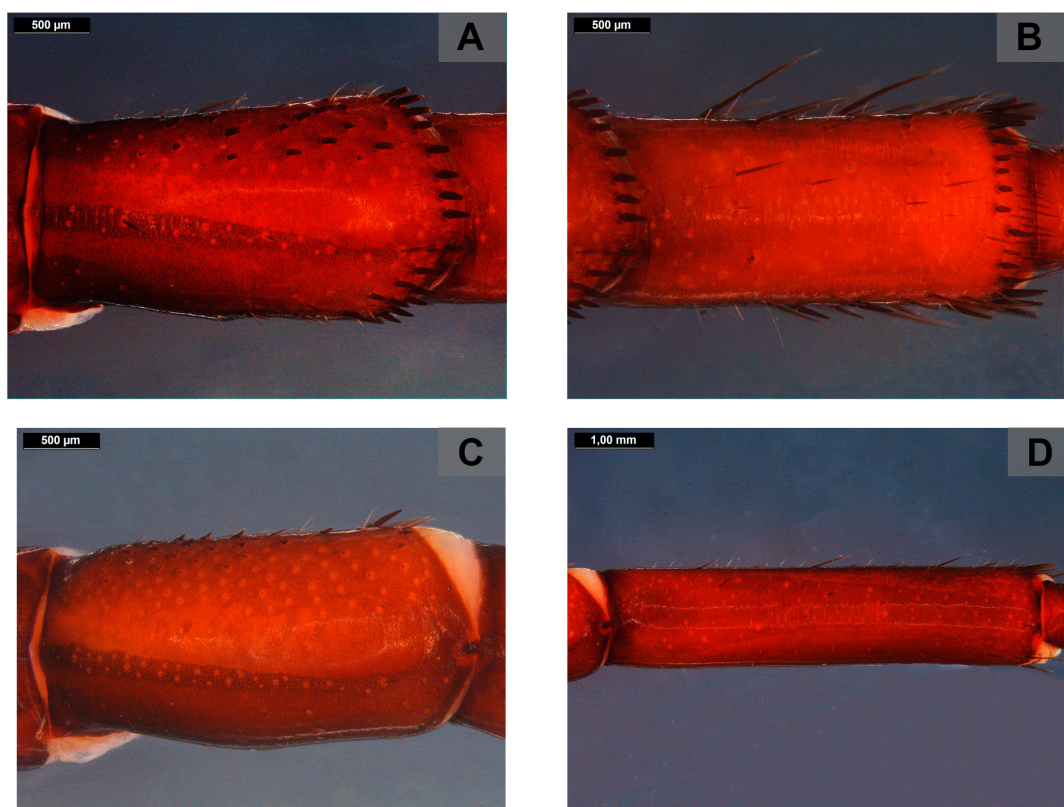


FIGURE 51 – *Actinopus candango* n. sp., male: A-D MZSP 22109: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

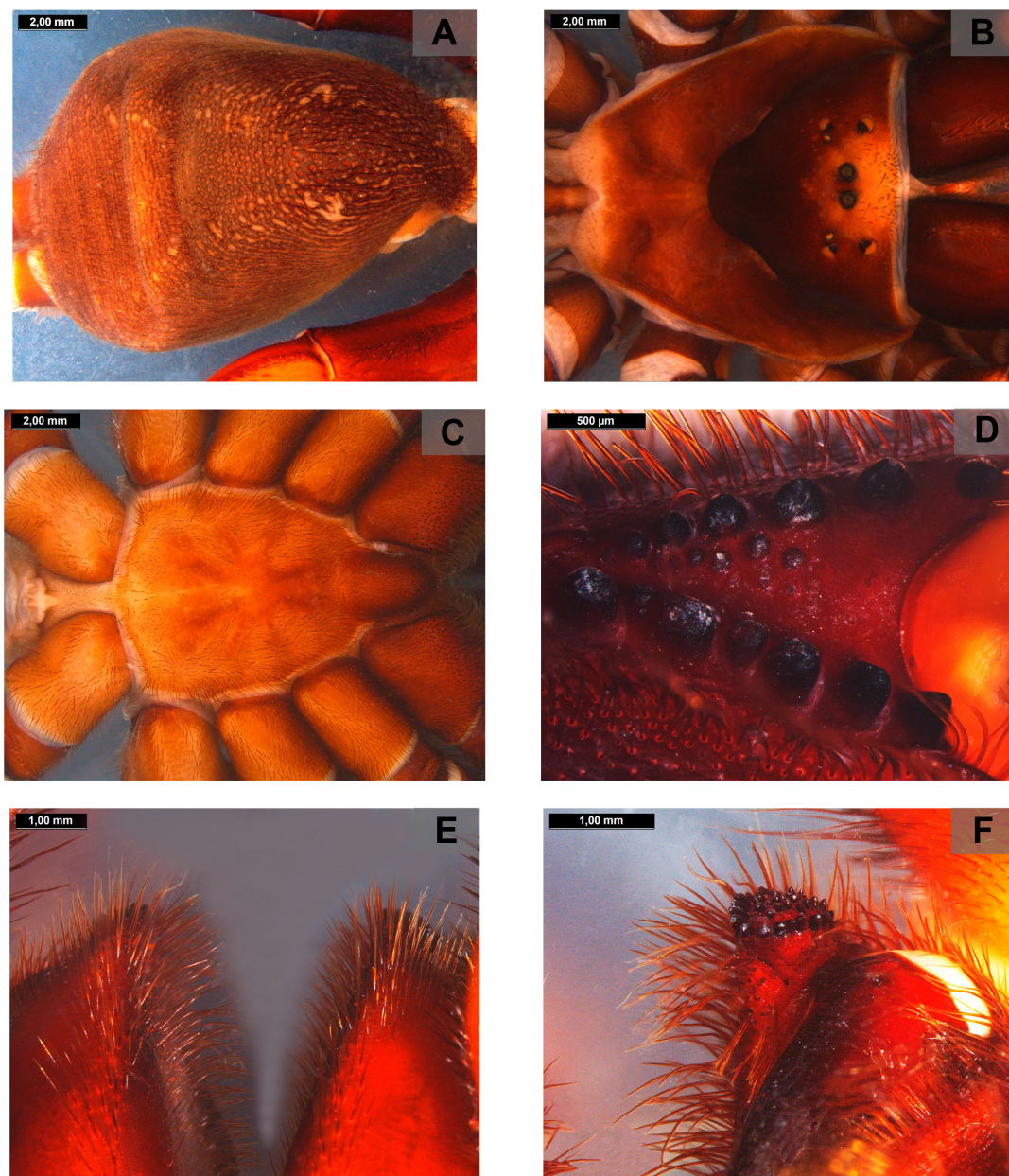


FIGURE 52 – *Actinopus candango* n. sp., female: A-F MZSP 22109: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

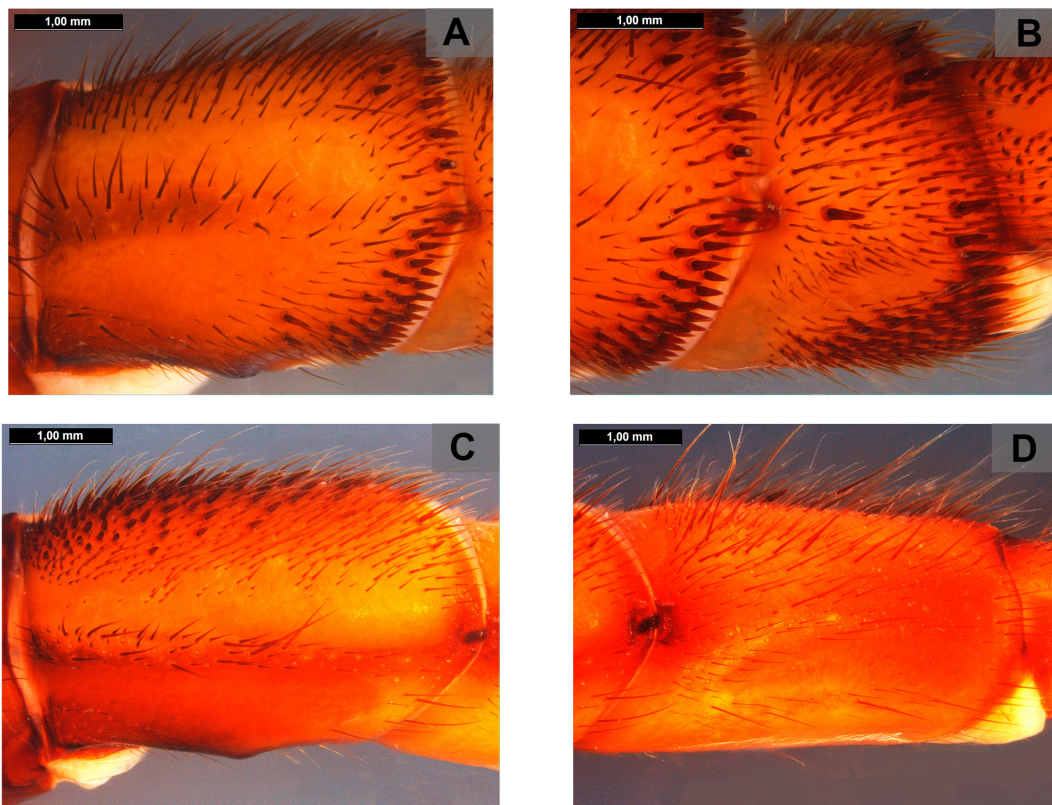


FIGURE 53 – *Actinopus candango* n. sp., female: A-D MZSP 22109: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

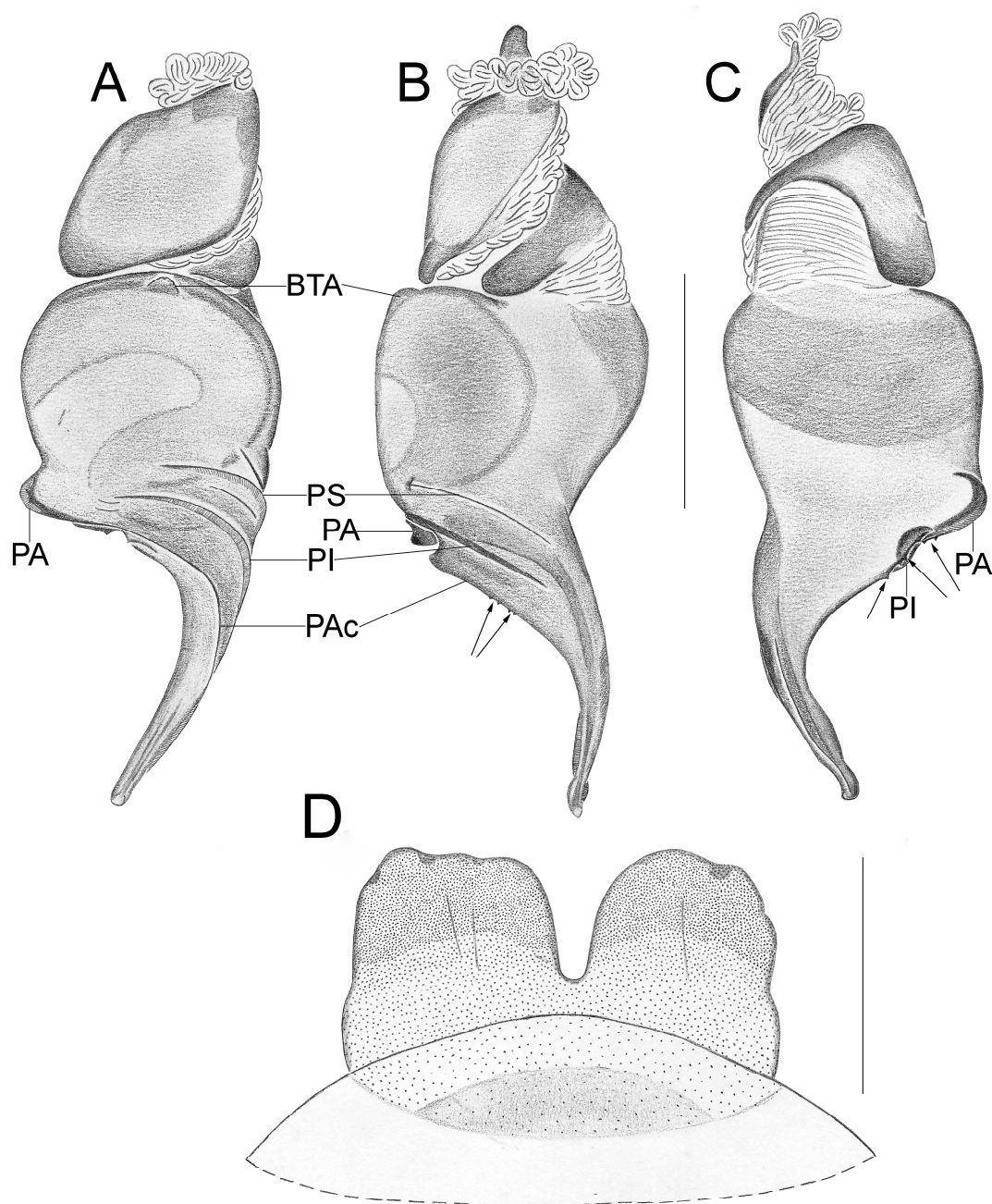


FIGURE 54 – *Actinopus candango* n. sp., male: A–C MZSP 22109: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D MZSP 22109: D. Spermathecae, dorsal view. Scale line: 1 mm.

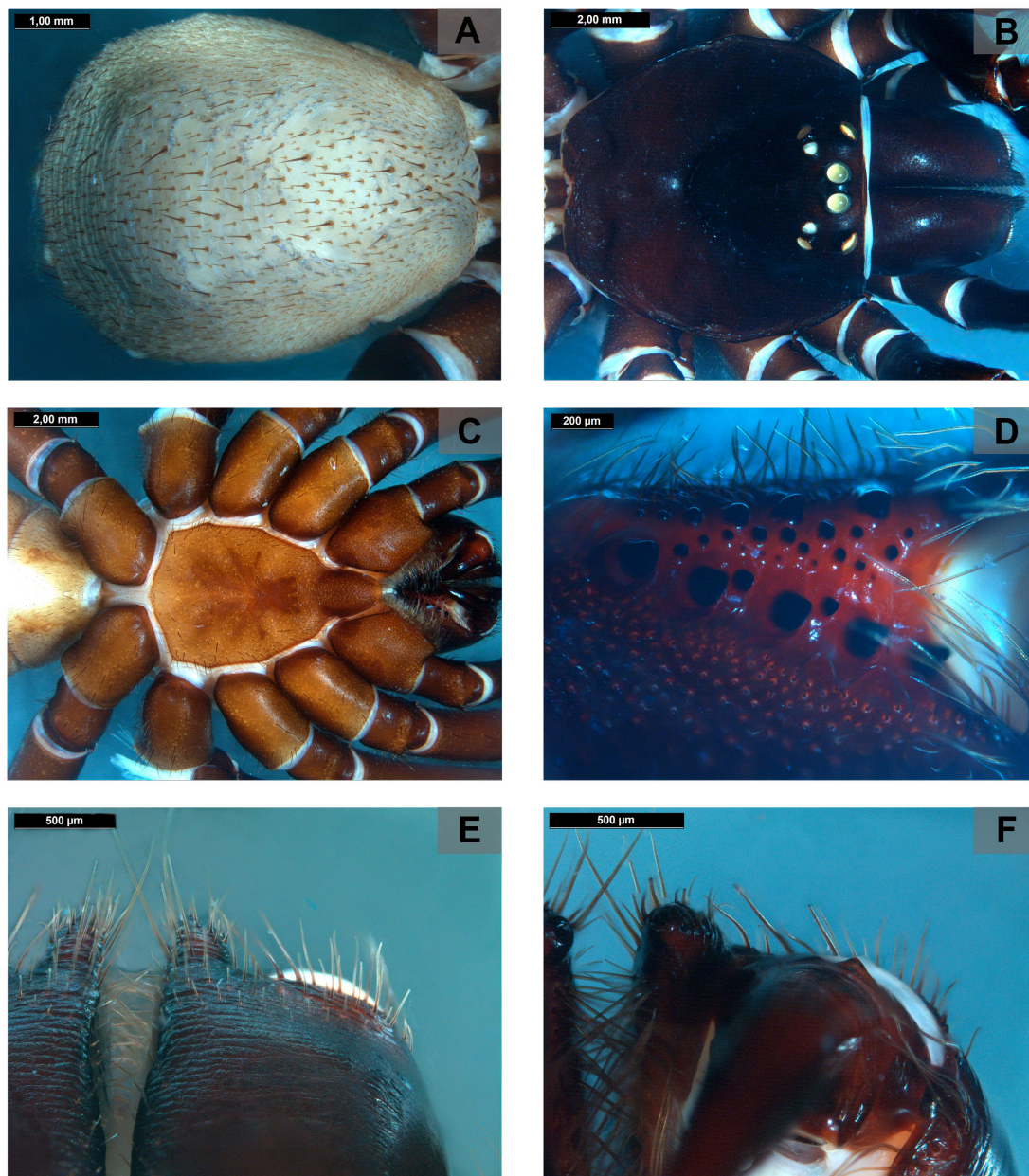


FIGURE 55 – *Actinopus paraitinga* n. sp., male: A-F IBSP 113424: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

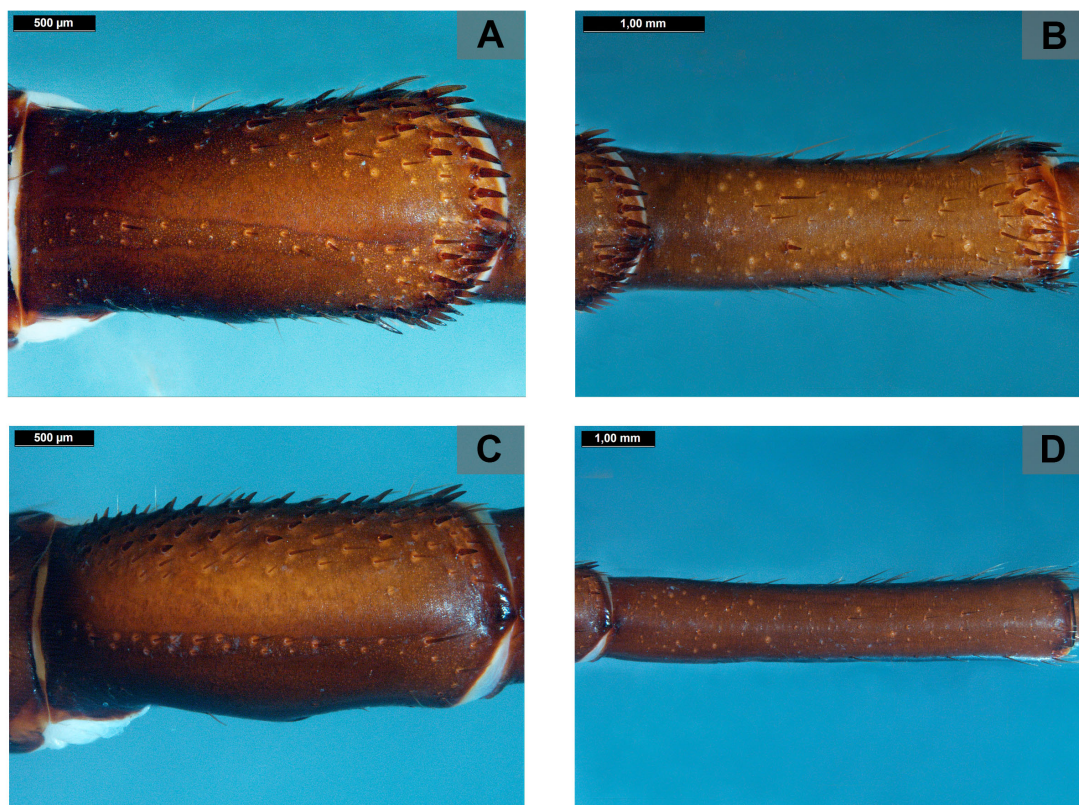


FIGURE 56 – *Actinopus paraitinga* n. sp., male: A-D IBSP 113424: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

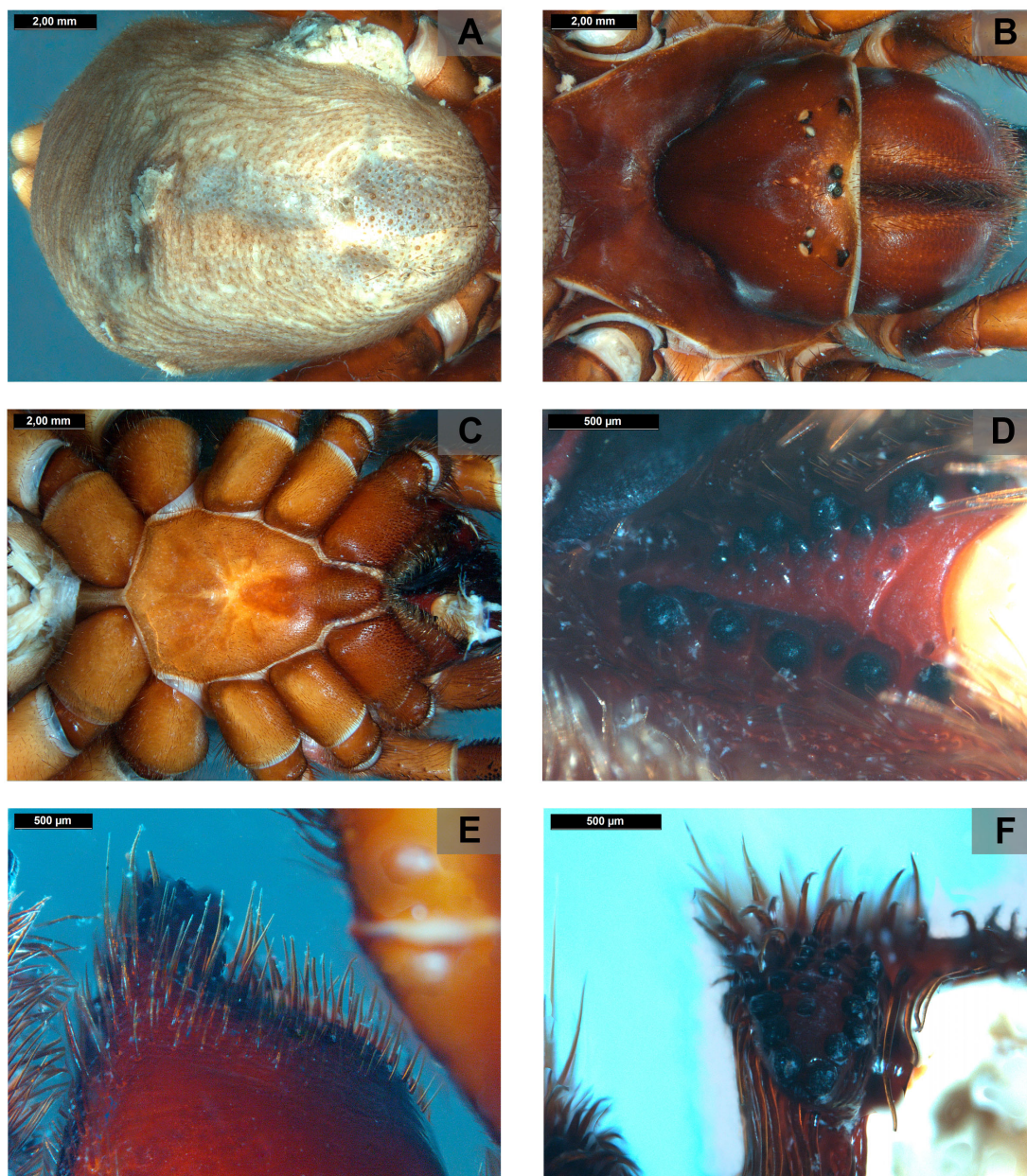


FIGURE 57 – *Actinopus paraitinga* n. sp., female: A-F MNRJ 1: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

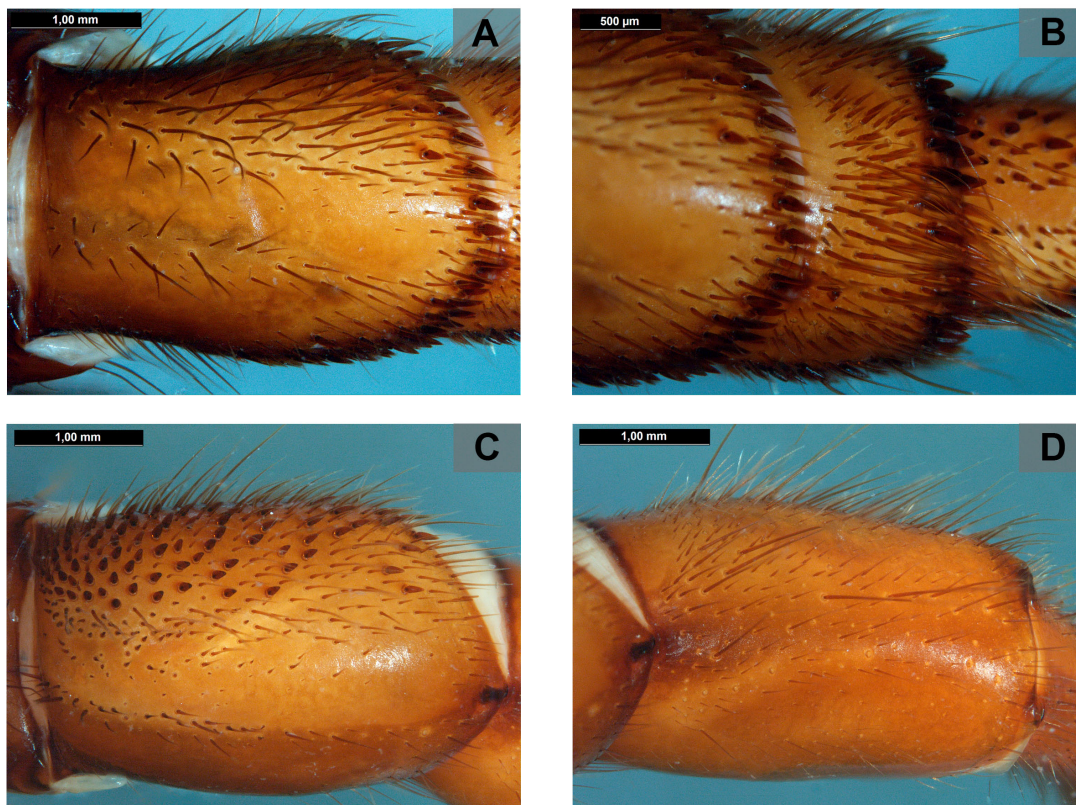


FIGURE 58 – *Actinopus paraitinga* n. sp., male: A-D MNRJ 1: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

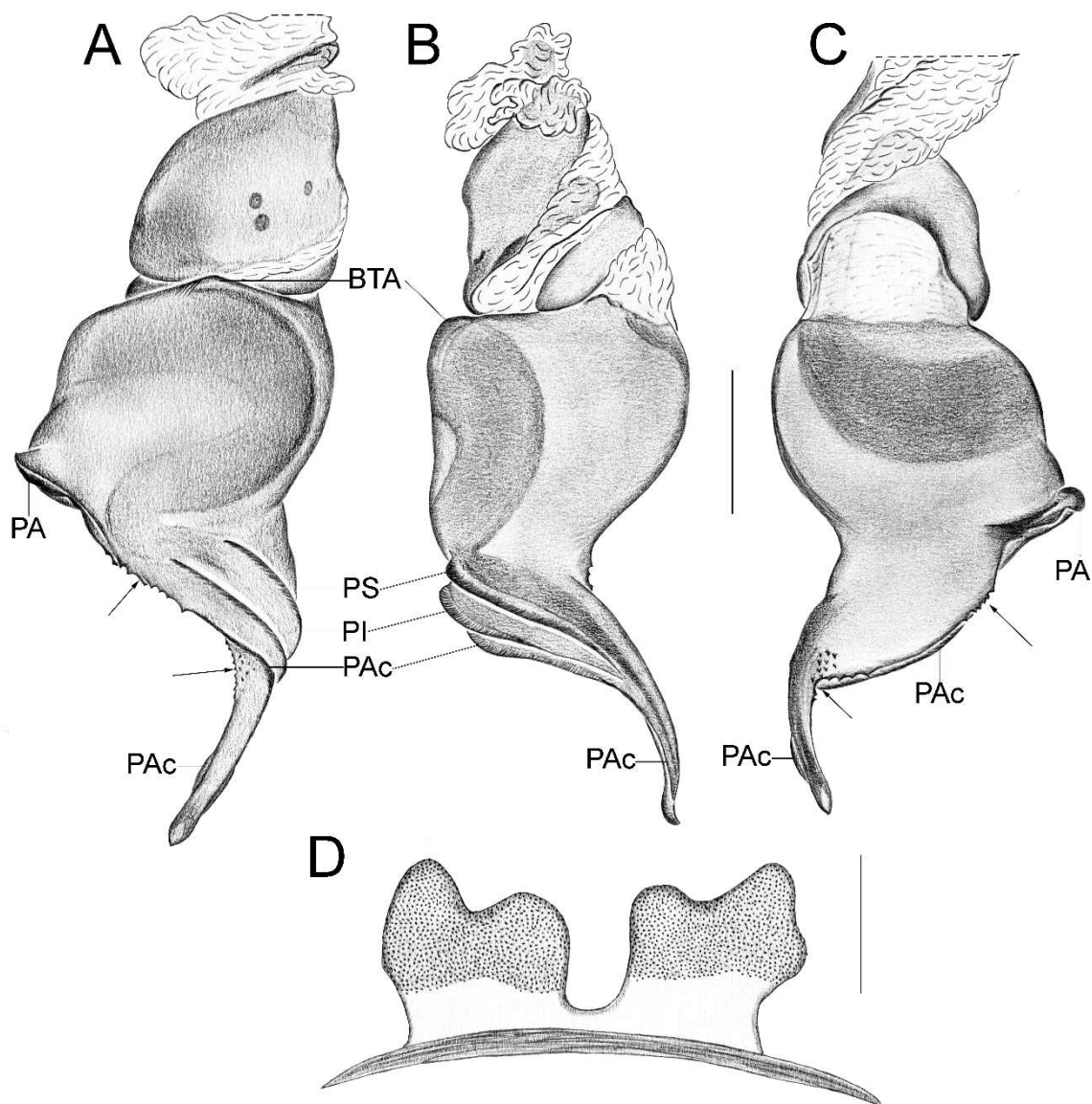


FIGURE 59 – *Actinopus paraitinga* n. sp., male: A–C IBSP 113424: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D MNRJ 1: D. Spermathecae, dorsal view. Scale line: 0.5 mm.

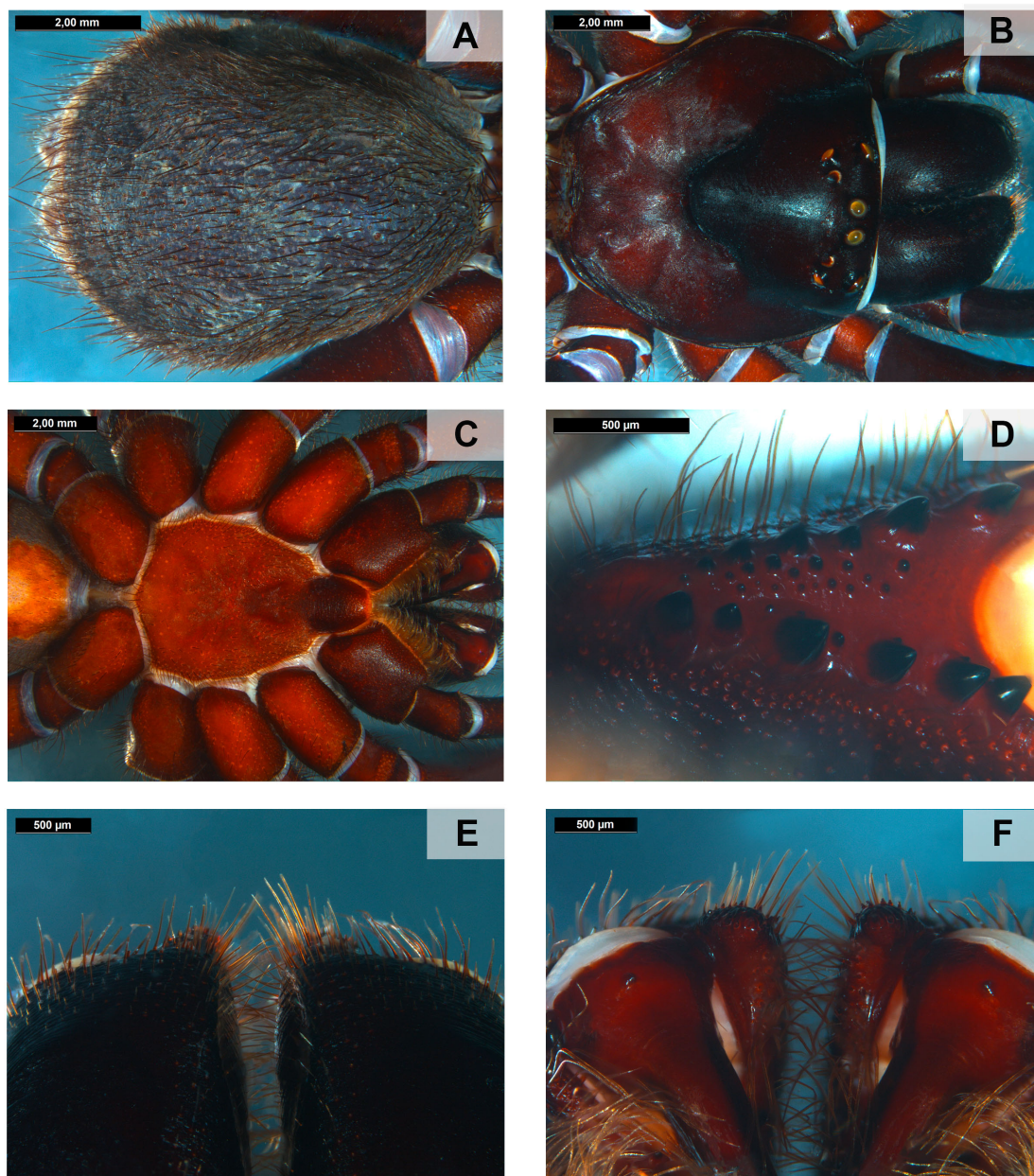


FIGURE 60 – *Actinopus cornelli* n. sp., male: A-F MCN 23400: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

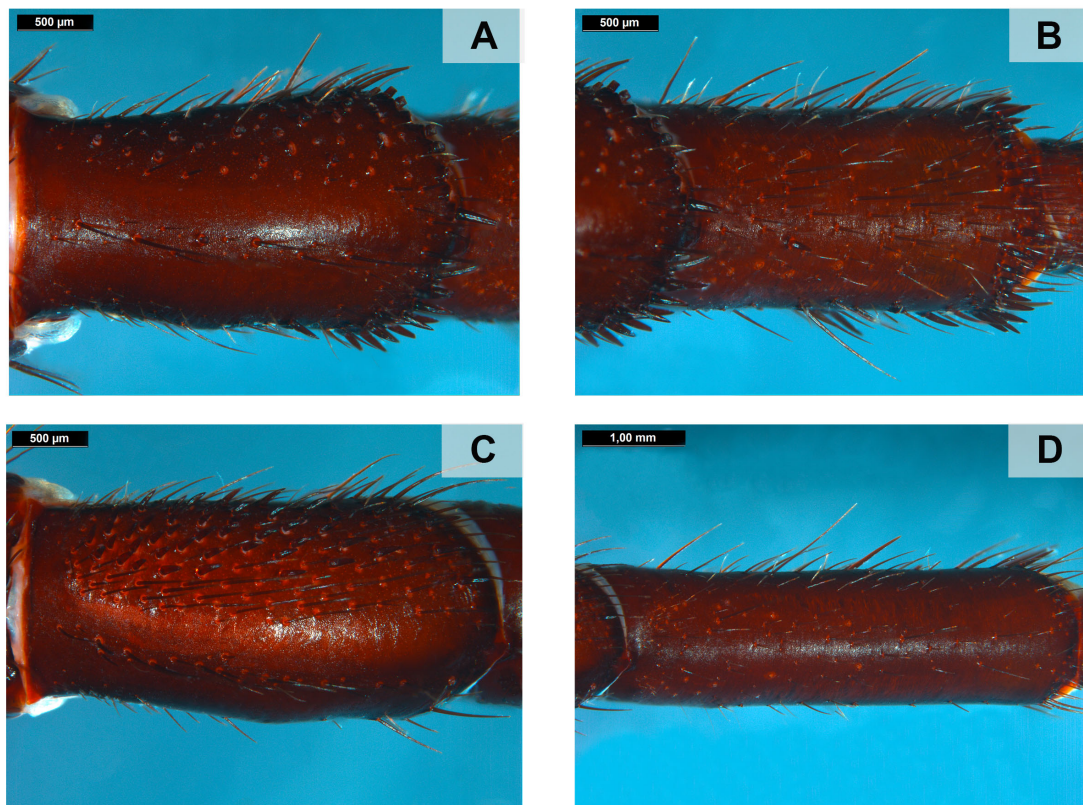


FIGURE 61 – *Actinopus cornelli* n. sp., male: A-D MCN 23400: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

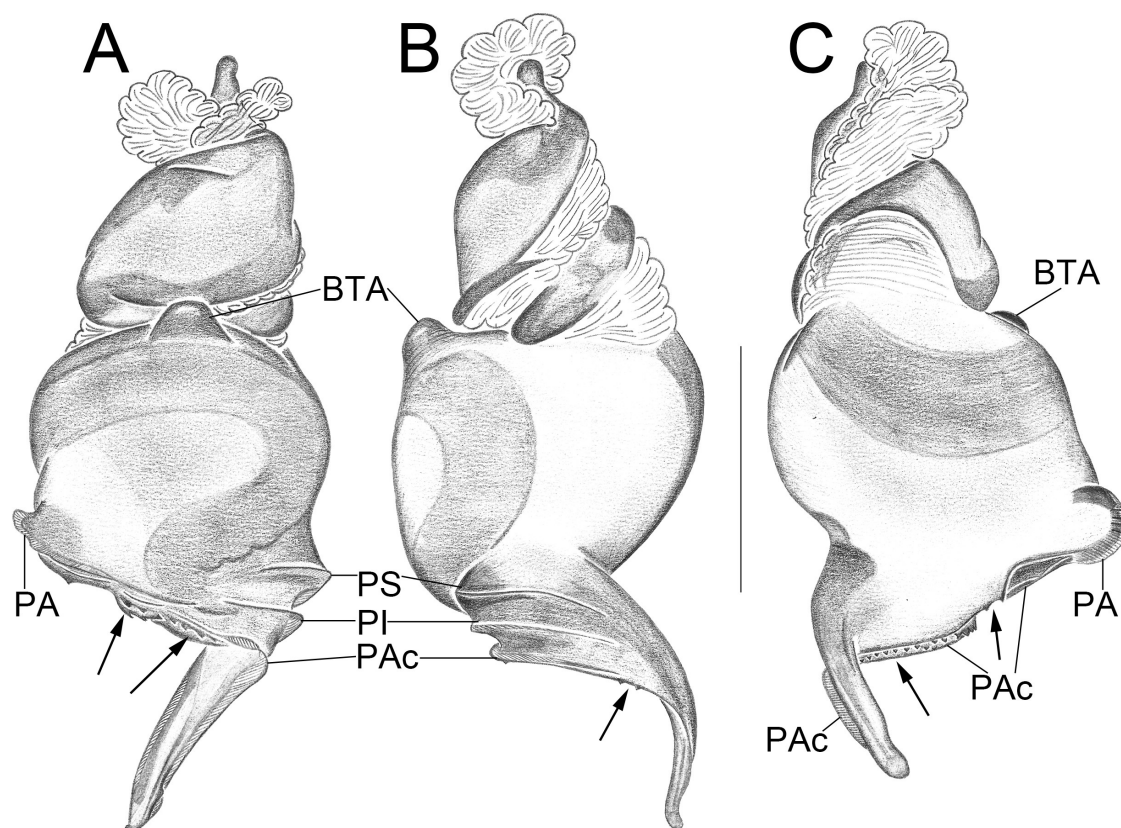


FIGURE 62 – *Actinopus cornelli* n. sp., male: A–C MCN 23400: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

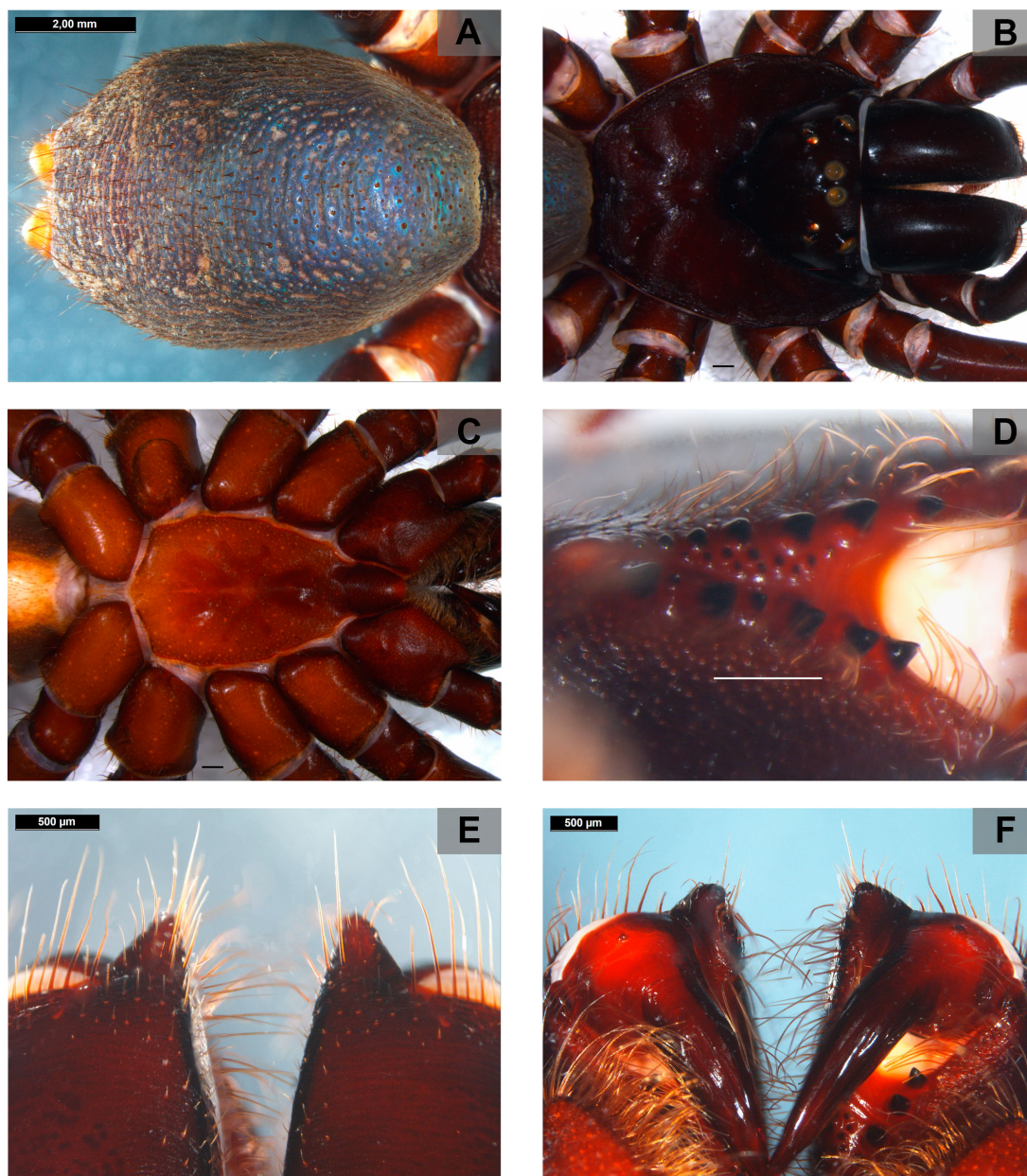


FIGURE 63 – *Actinopus nattereri* (Doleschall, 1871), male: A-F INPA 3511: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

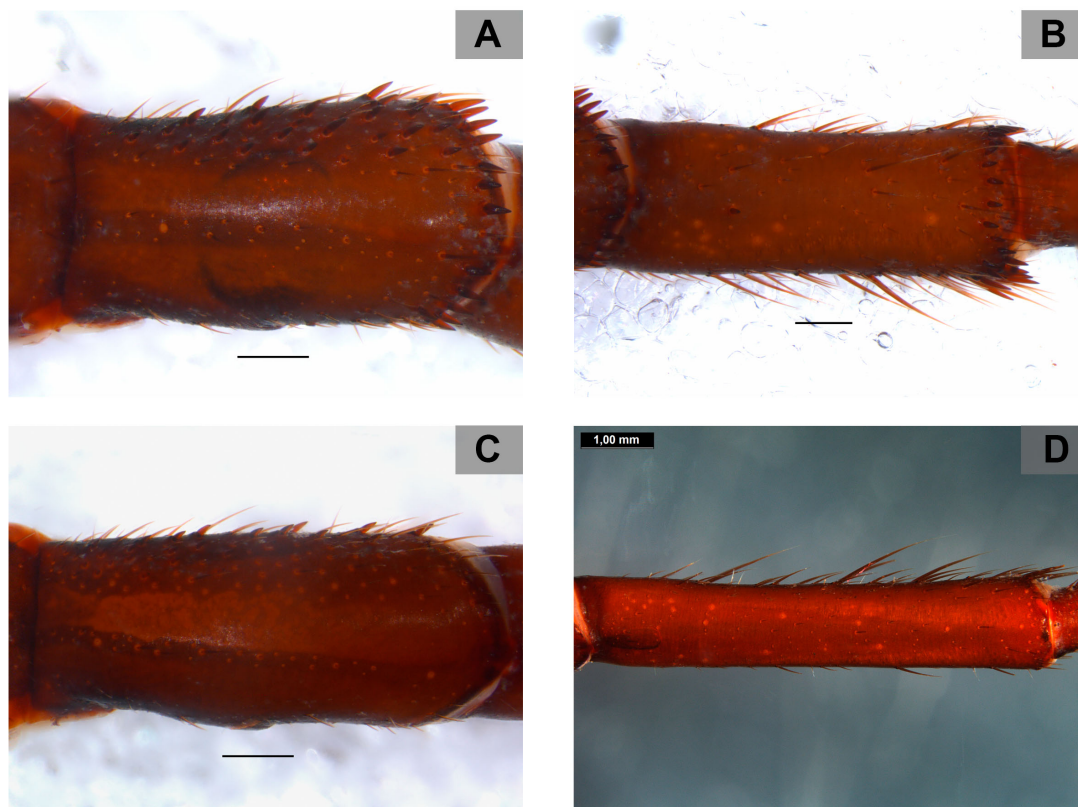


FIGURE 64 – *Actinopus nattereri* (Doleschall, 1871), male: A-D INPA 3511: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

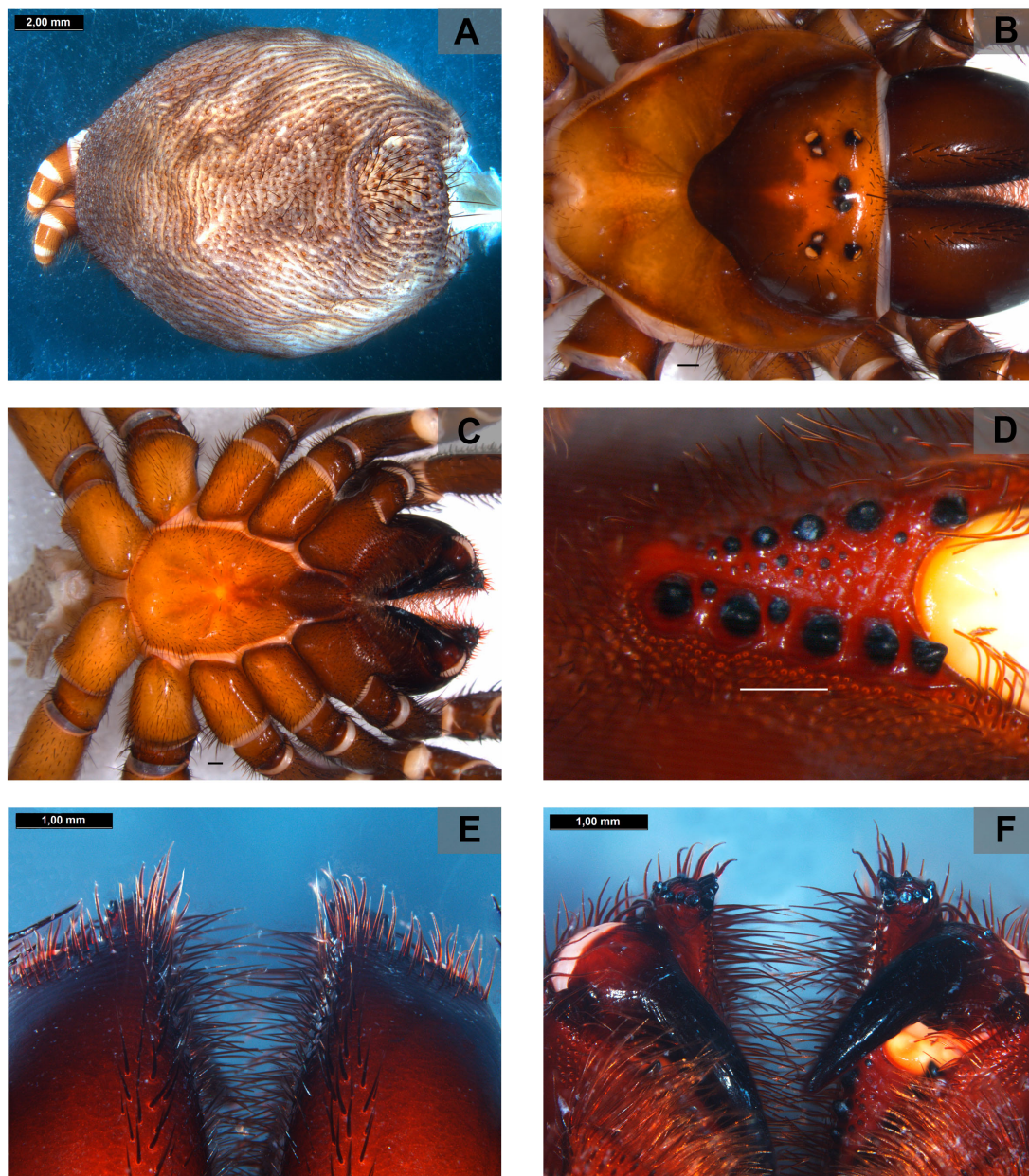


FIGURE 65 – *Actinopus nattereri* (Doleschall, 1871), female: A-F IBSP 113544: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.



FIGURE 66 – *Actinopus nattereri* (Doleschall, 1871), female: A-D IBSP 113544: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

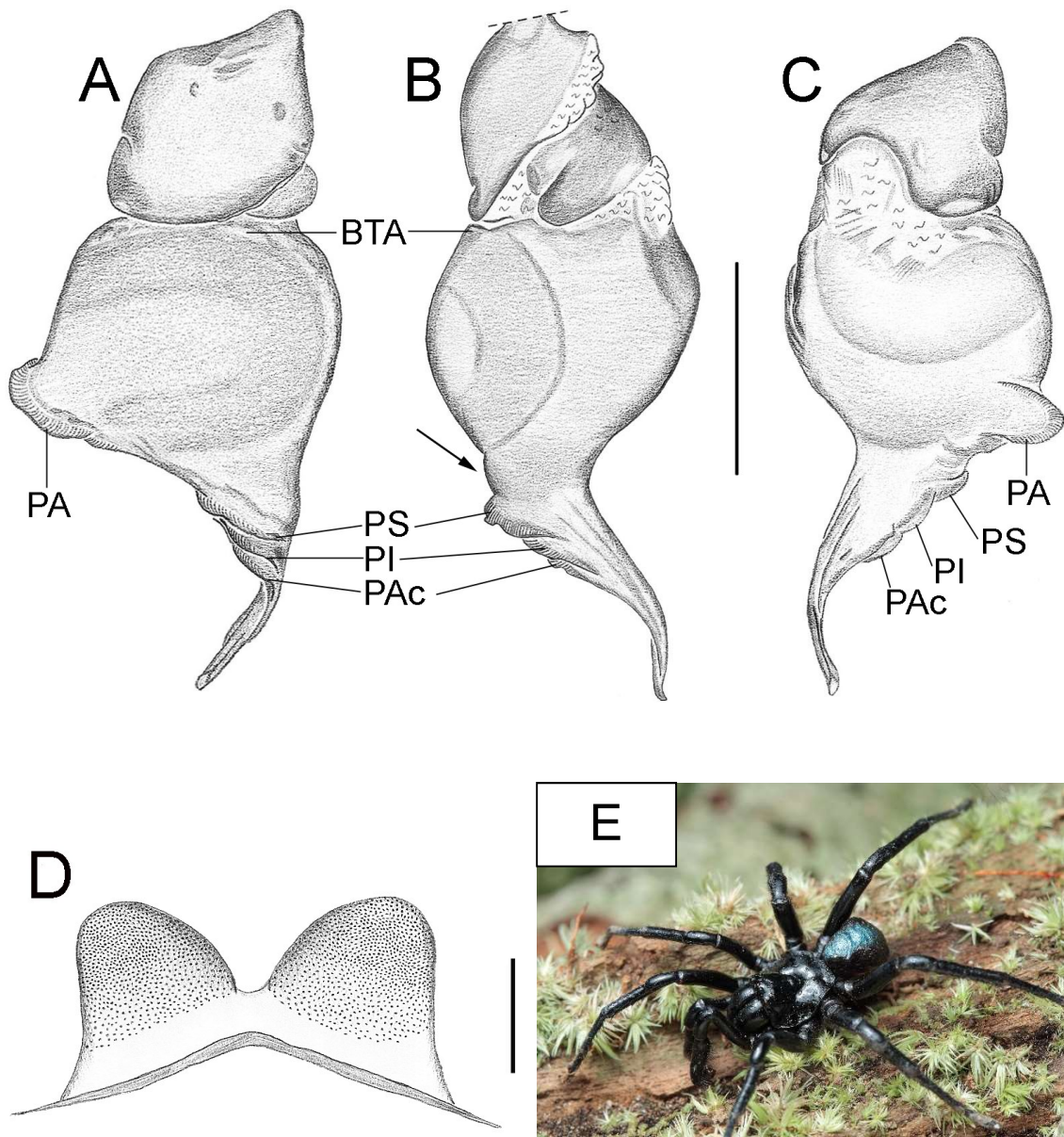


FIGURE 67 – *Actinopus nattereri* (Doleschall, 1871), male: A–C INPA 3511: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrow: Serrated area. Paratype, female: D IBSP 13544: D. Spermathecae, dorsal view. Scale line: Male: 1 mm, female: 0.5 mm. E INPA: E. Dorsal habitus, alive, with a big blue iridescent spot on dorsal abdomen. Photo: Thiago G. Carvalho.

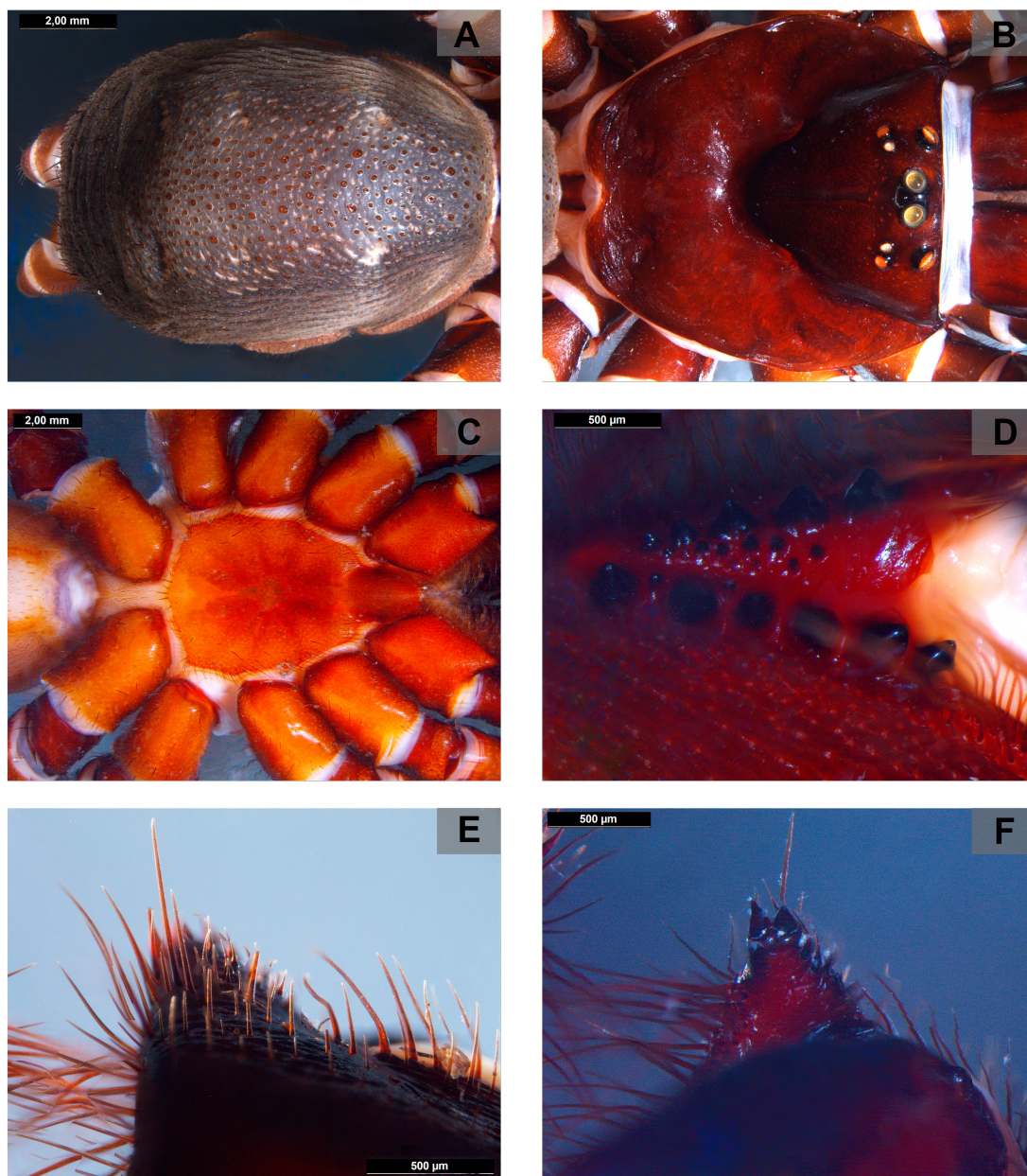


FIGURE 68 – *Actinopus rufipes* (Lucas, 1834), male: A-F IBSP 113544: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

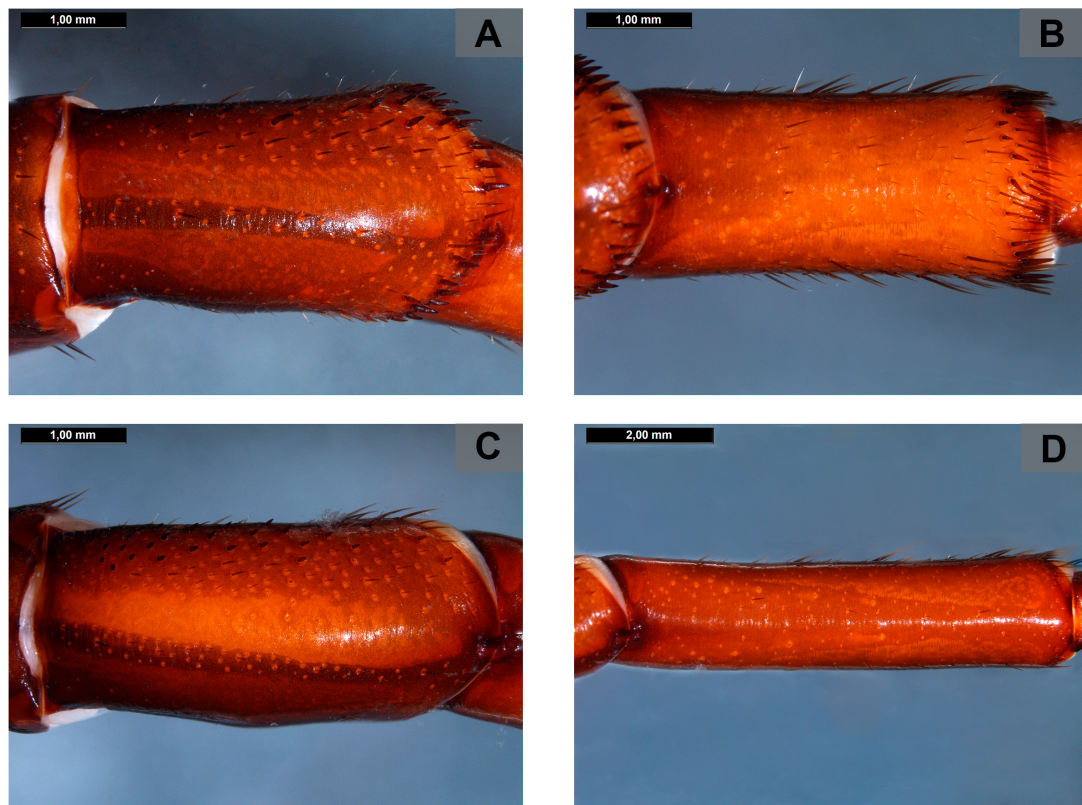


FIGURE 69 – *Actinopus rufipes* (Lucas, 1834), male: A-D IBSP 113544: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

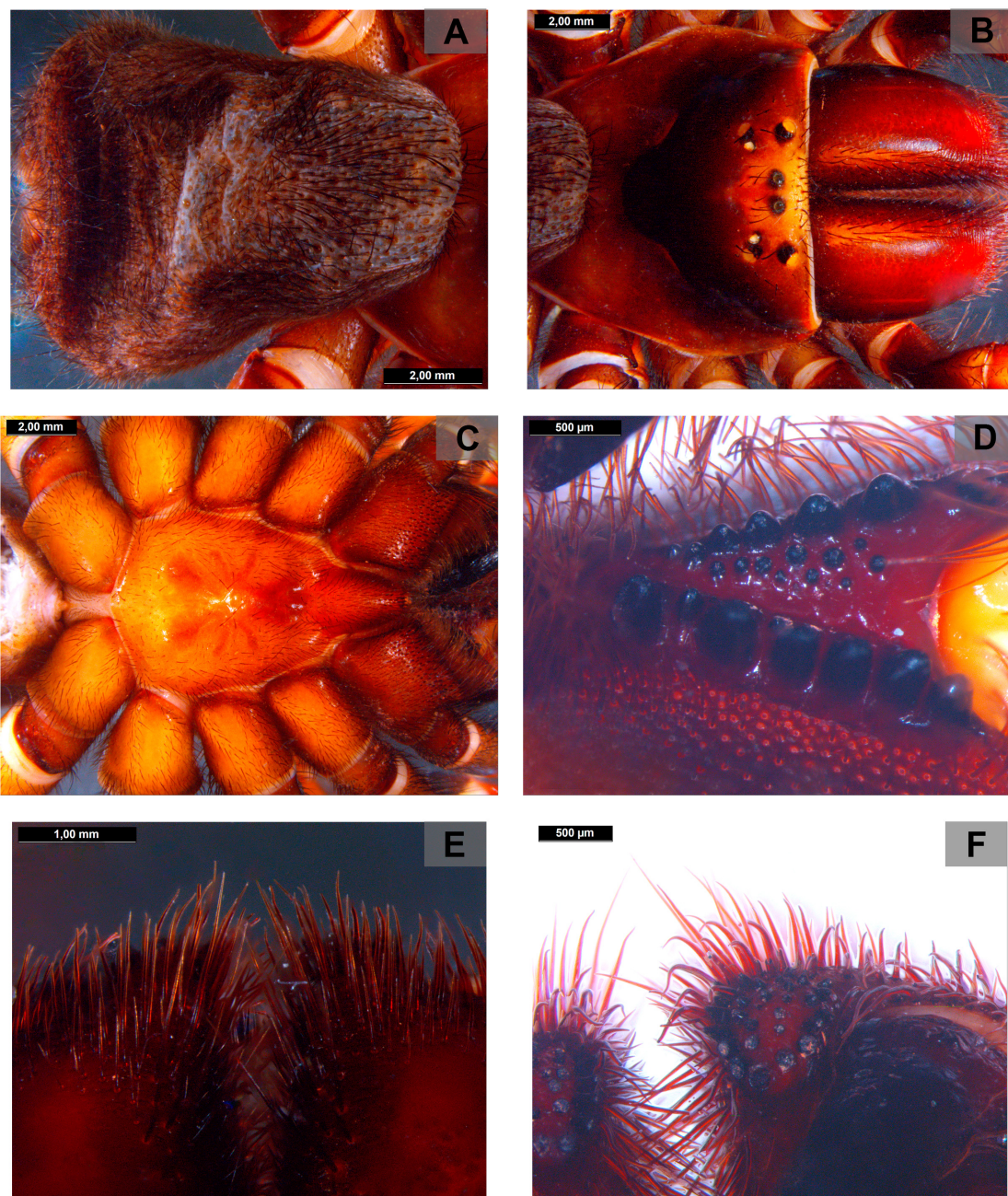


FIGURE 70 – *Actinopus rufipes* (Lucas, 1834), female: A-F CAD 77: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

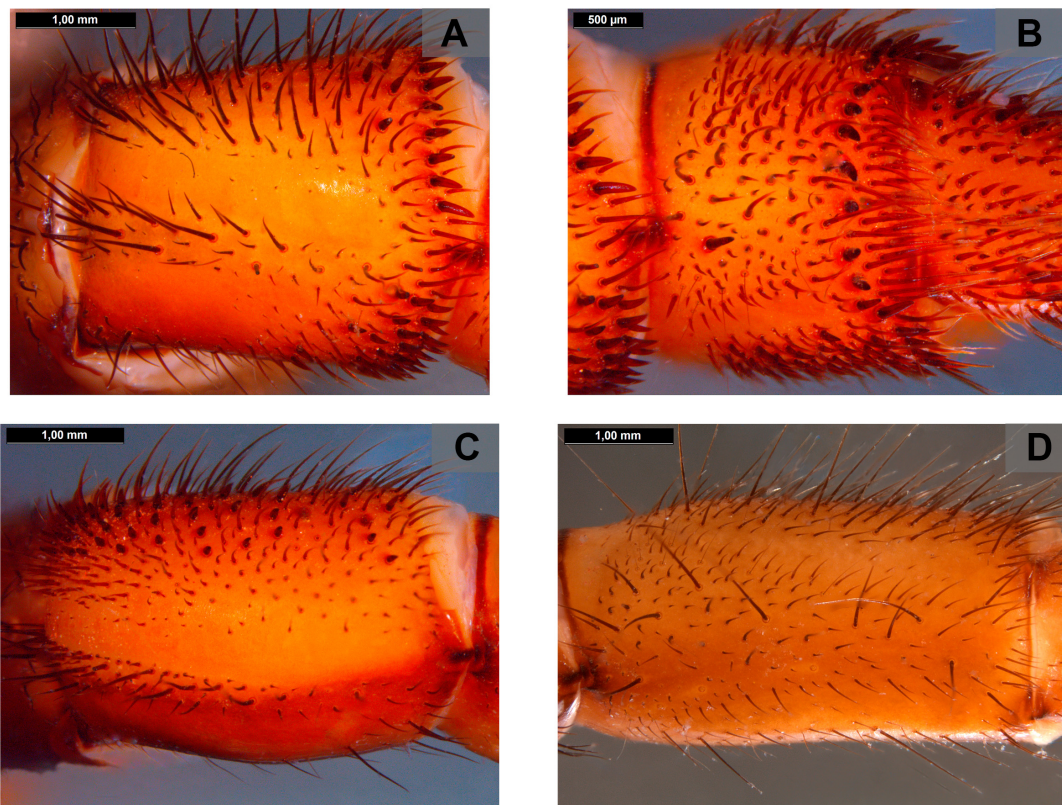


FIGURE 71 – *Actinopus rufipes* (Lucas, 1834), female: A-D CAD 77: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

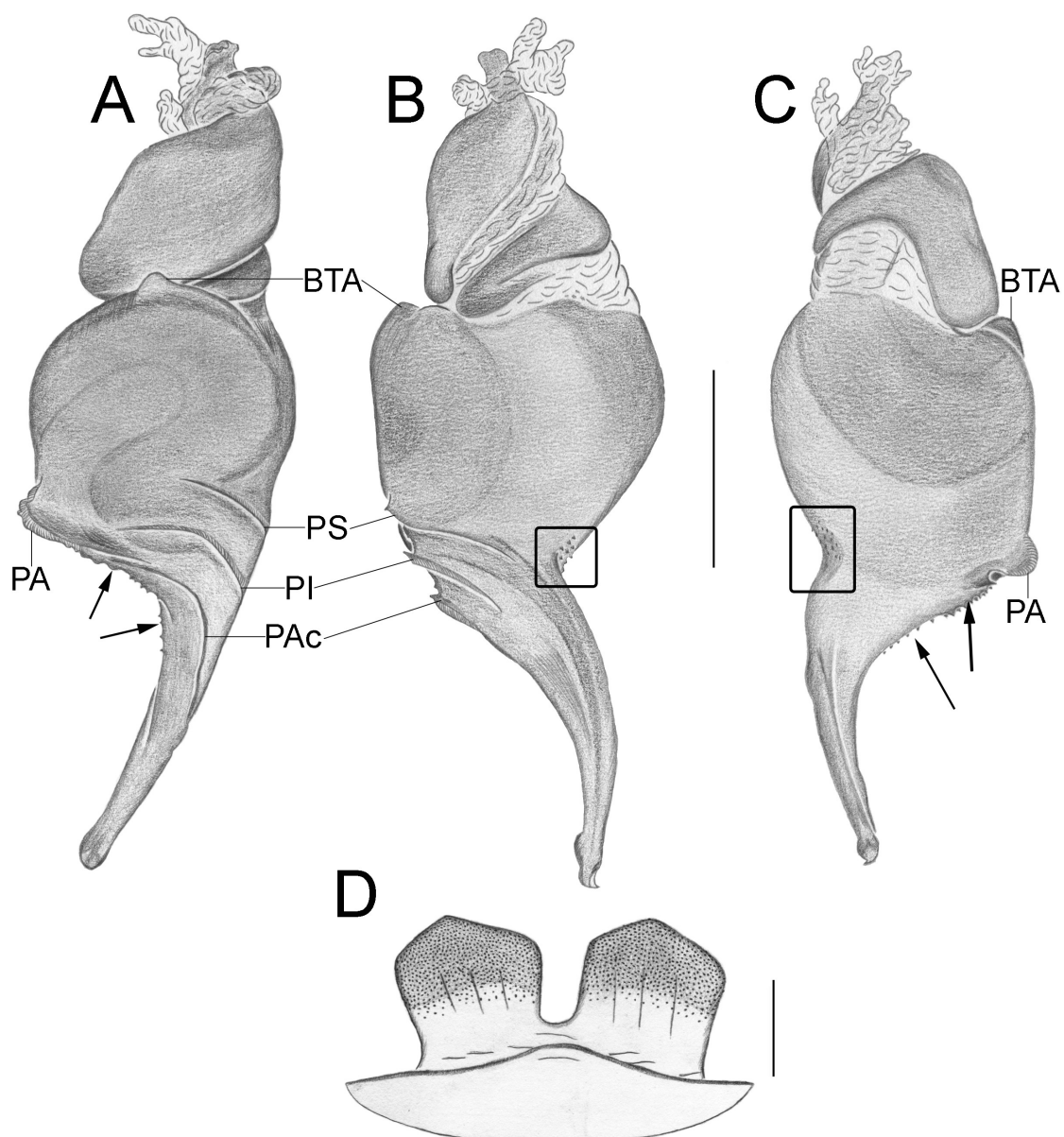


FIGURE 72 – *Actinopus rufipes* (Lucas, 1834), male: A–C IBSP 161468: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area; Retangles: Cusps on retrolateral embolus. Paratype, female: D CAD 77: D. Spermathecae, dorsal view. Scale line: Male: 1 mm, female: 0.5 mm.

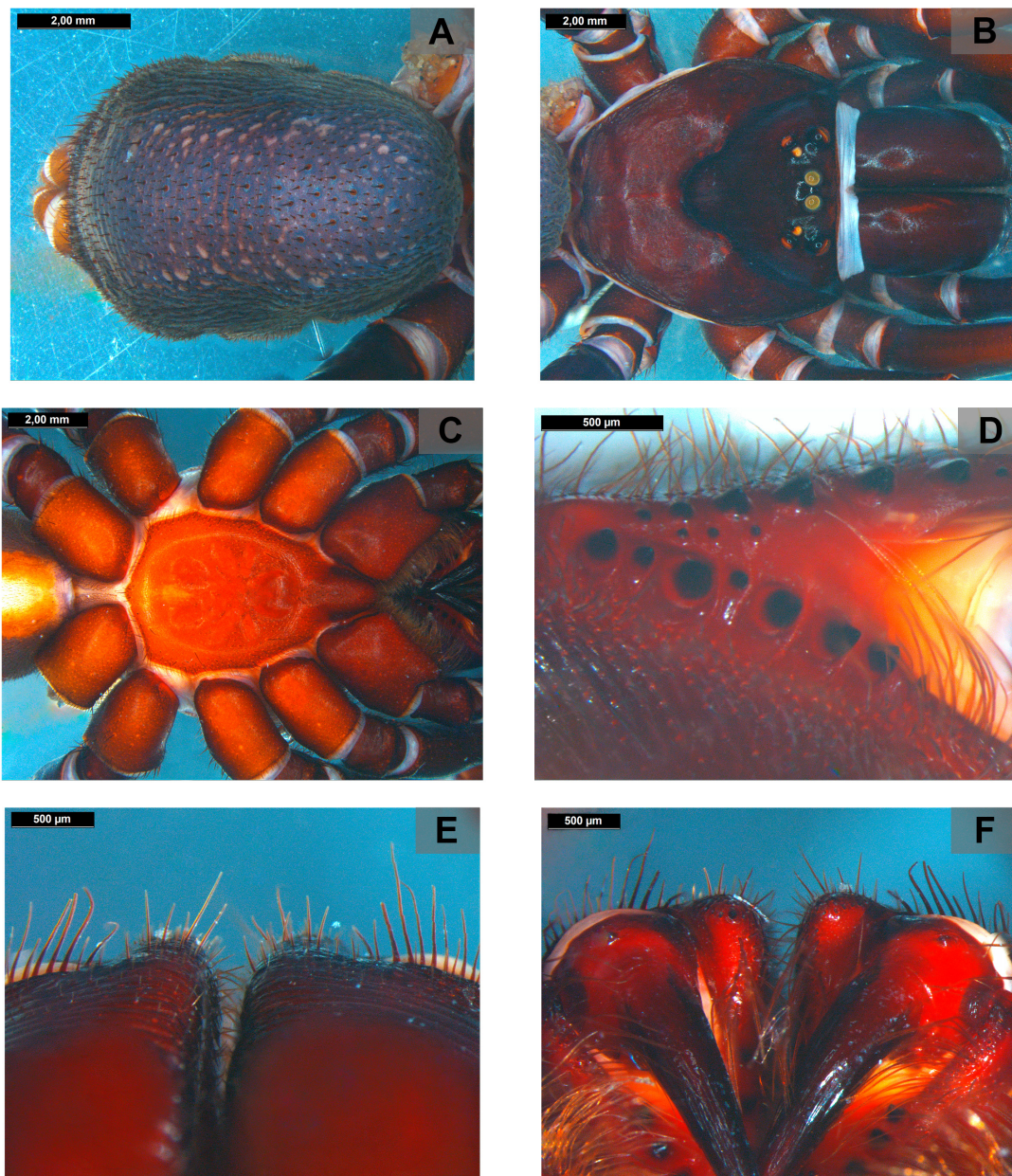


FIGURE 73 – *Actinopus vilhena* n. sp., male: A-F IBSP 114440: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

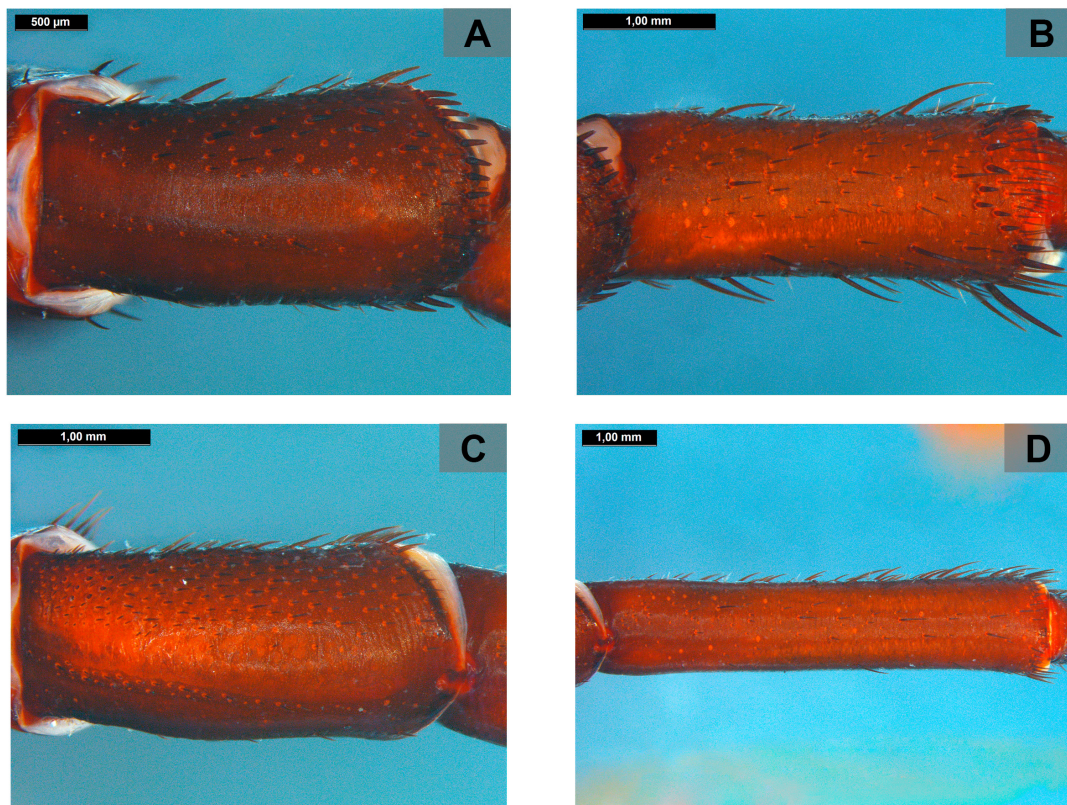


FIGURE 74 – *Actinopus vilhena* n. sp., male: A-D IBSP 114440: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

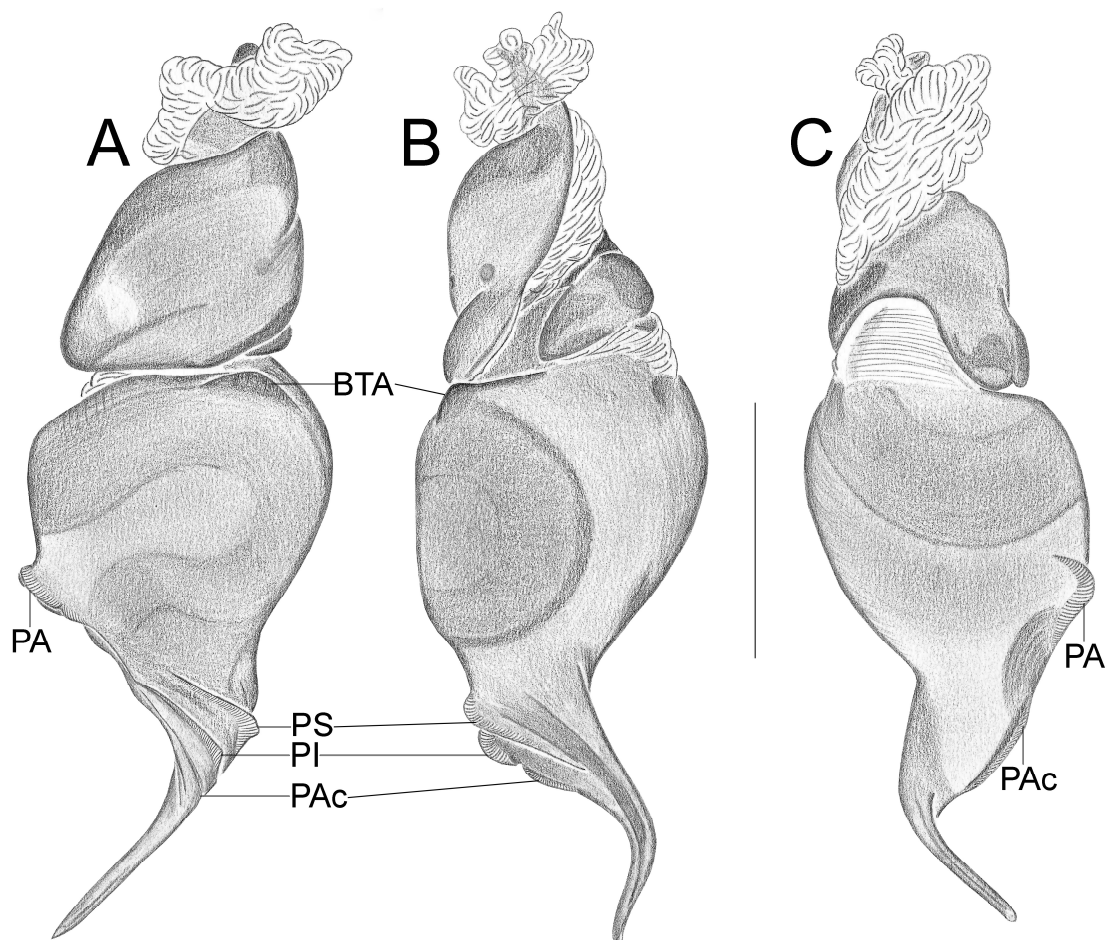


FIGURE 75 – *Actinopus vilhena* n. sp., male: A–C IBSP 114440: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

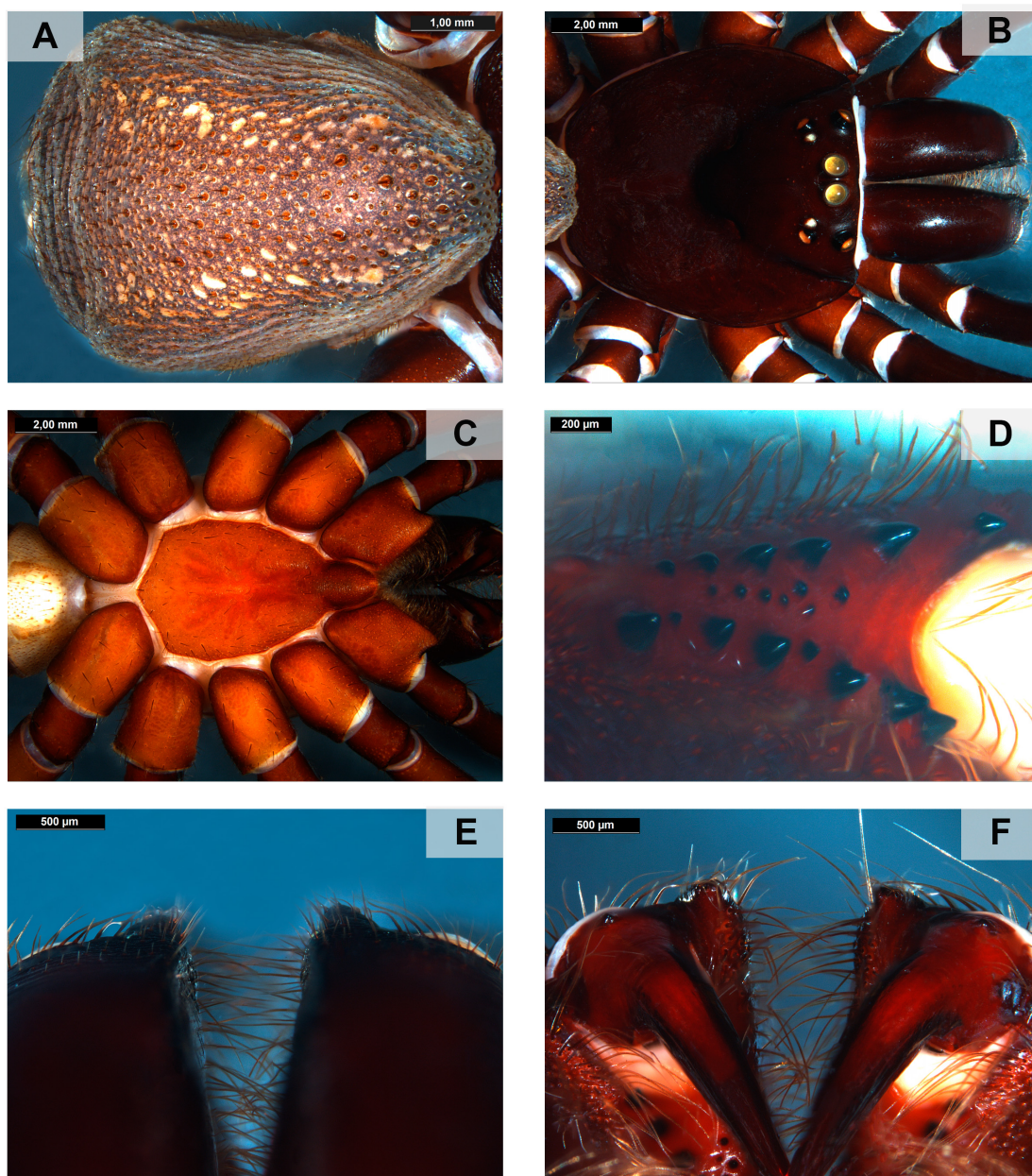


FIGURE 76 – *Actinopus harveyi* n. sp., male: A-F IBSP 111837: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

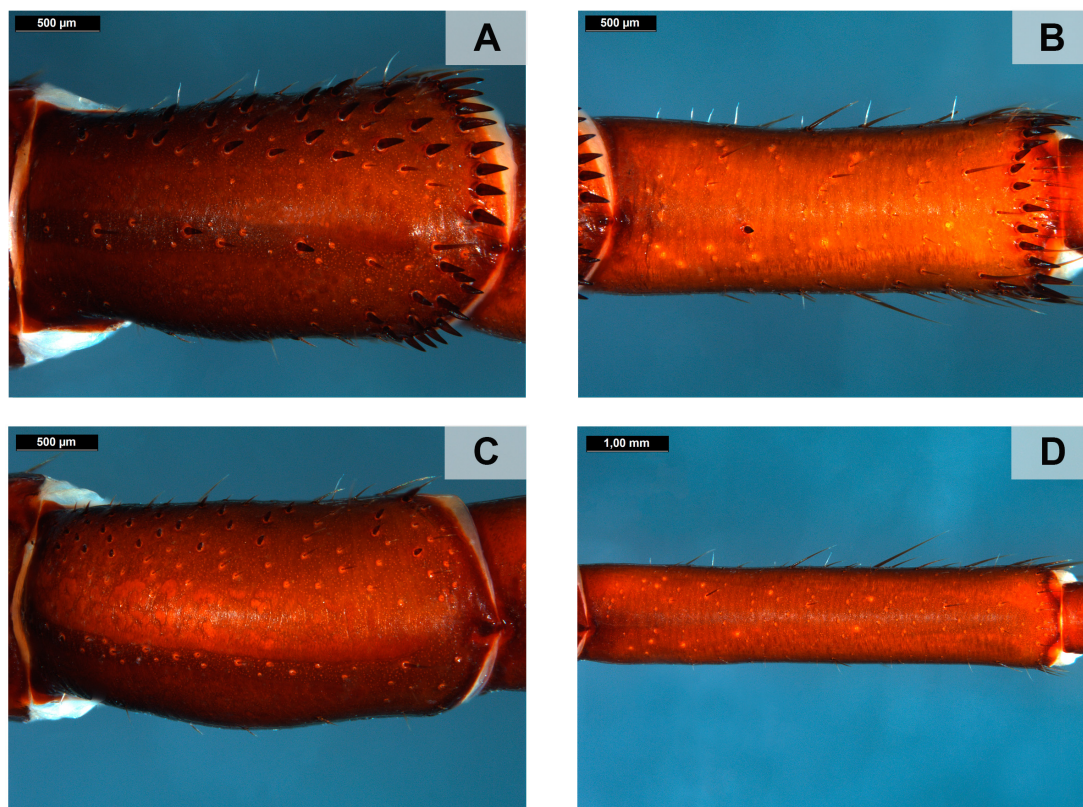


FIGURE 77 – *Actinopus harveyi* n. sp., male: A-D IBSP 111837: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

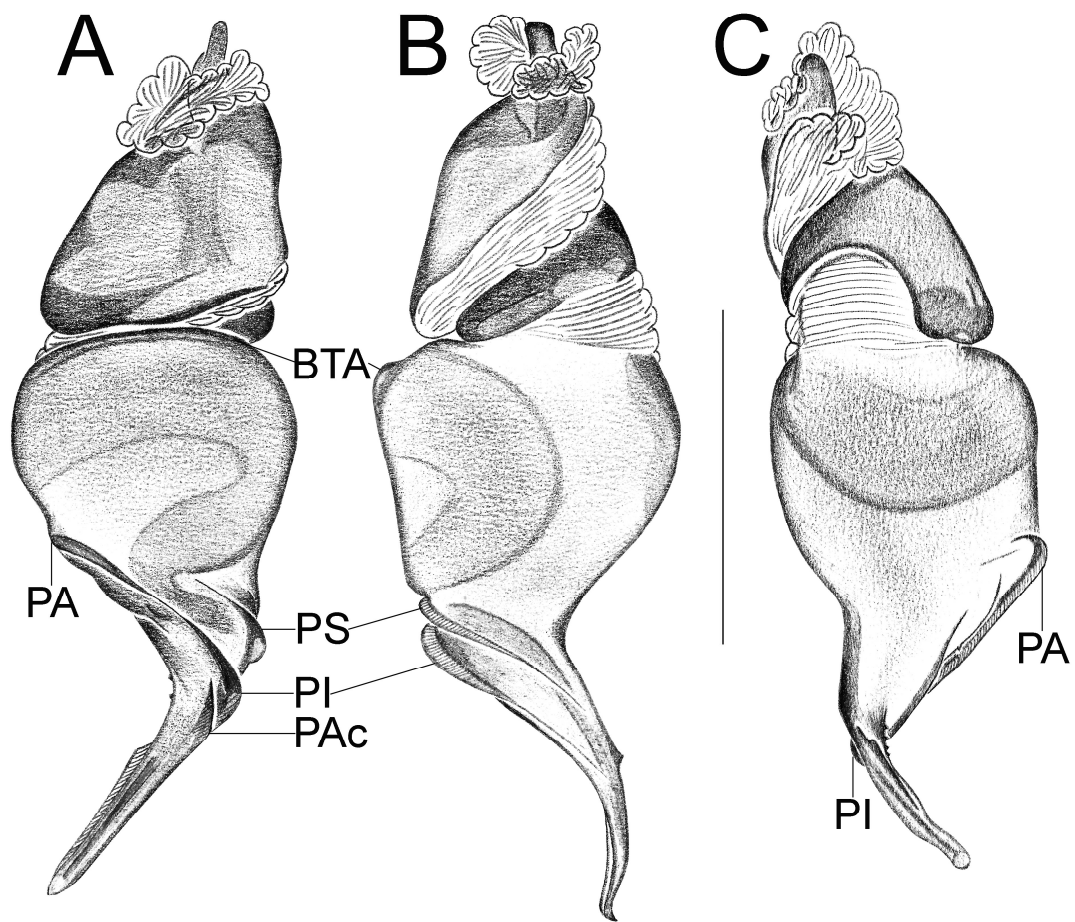


FIGURE 78 – *Actinopus harveyi* n. sp., male: A–C IBSP 111837: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

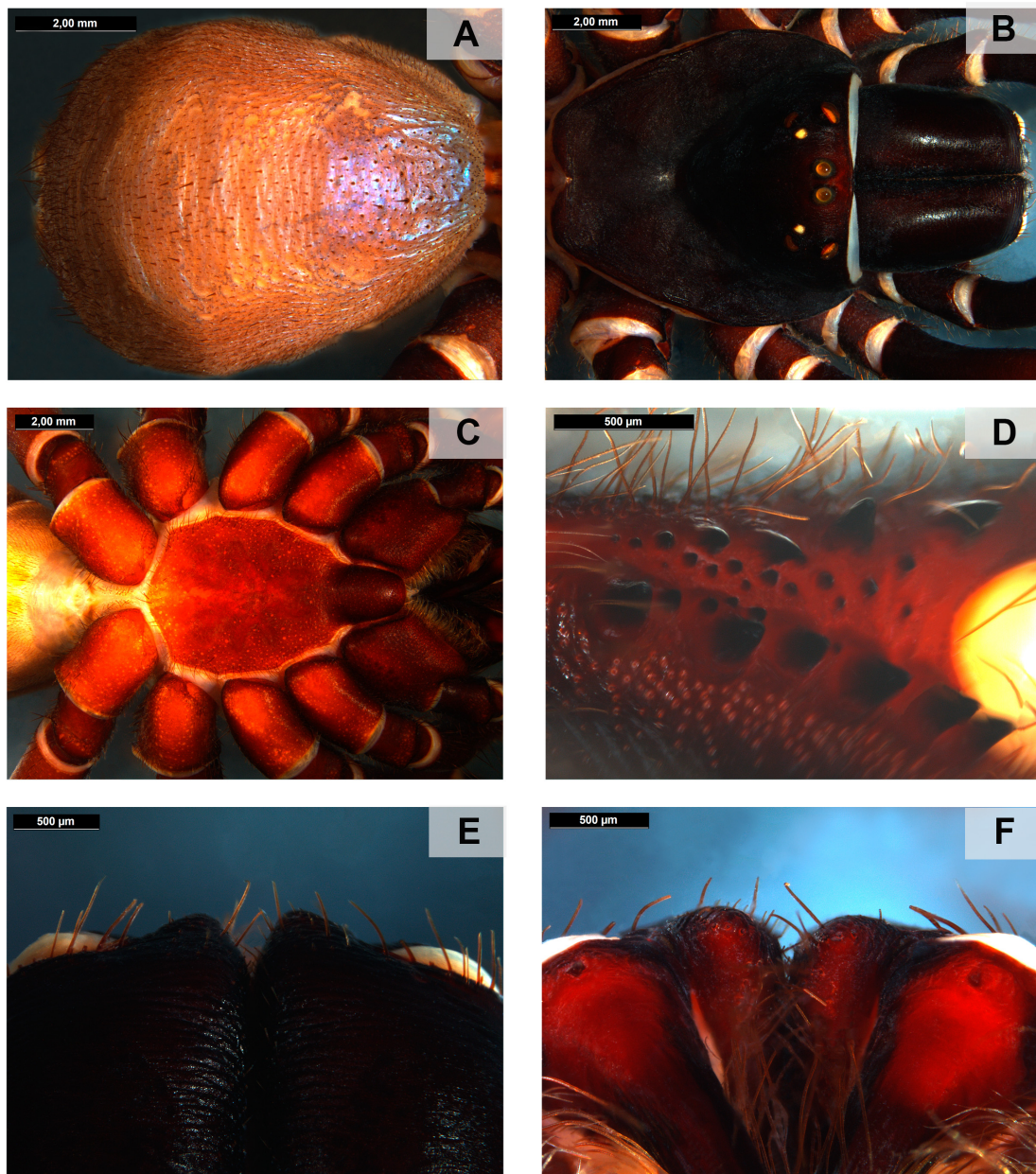


FIGURE 79 – *Actinopus itapitocai* n. sp., male: A–F MCN 3112: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

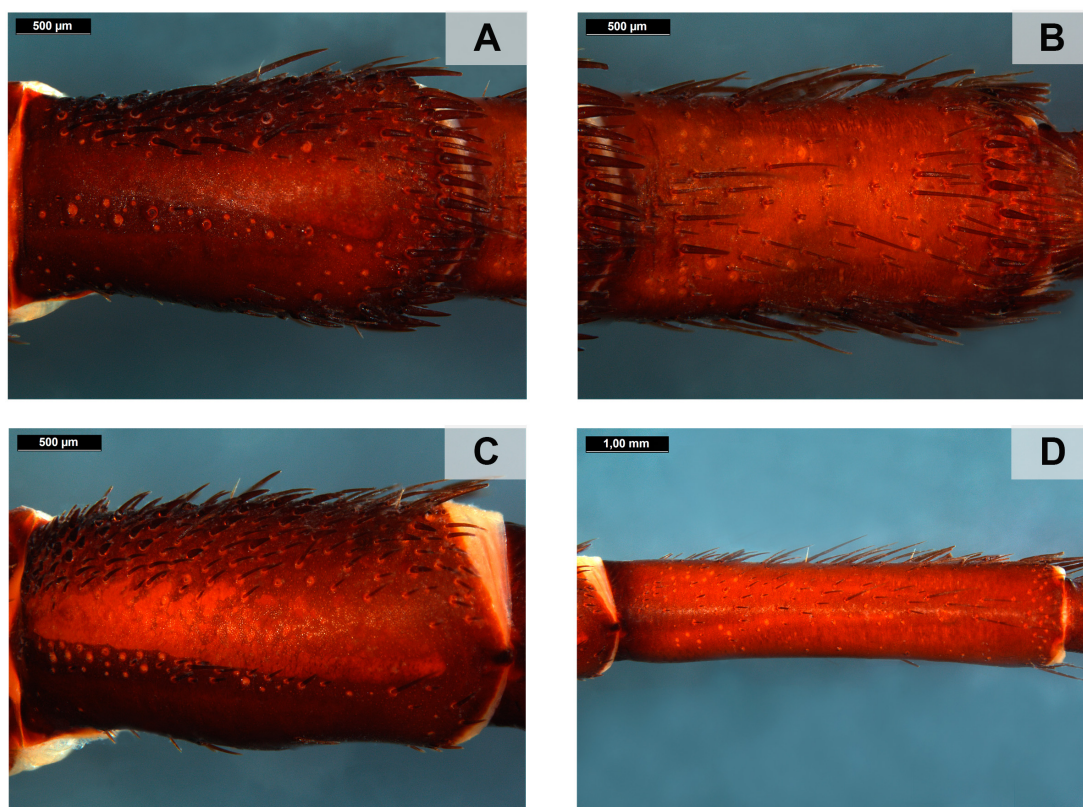


FIGURE 80 – *Actinopus itapitocai* n. sp., male: A–D MCN 3112: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

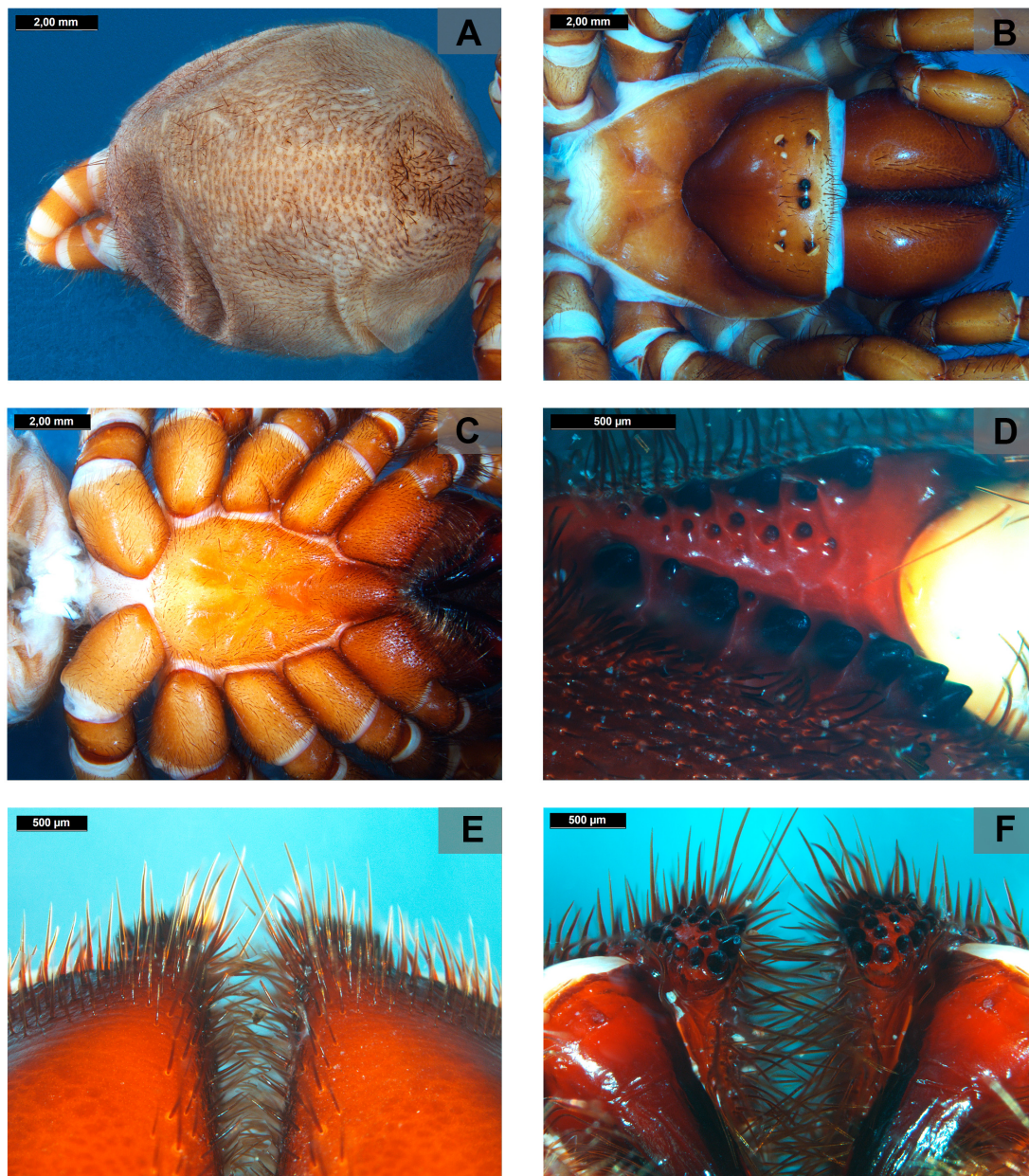


FIGURE 81 – *Actinopus itapitocai* n. sp., female: A–F MZSP 22113: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

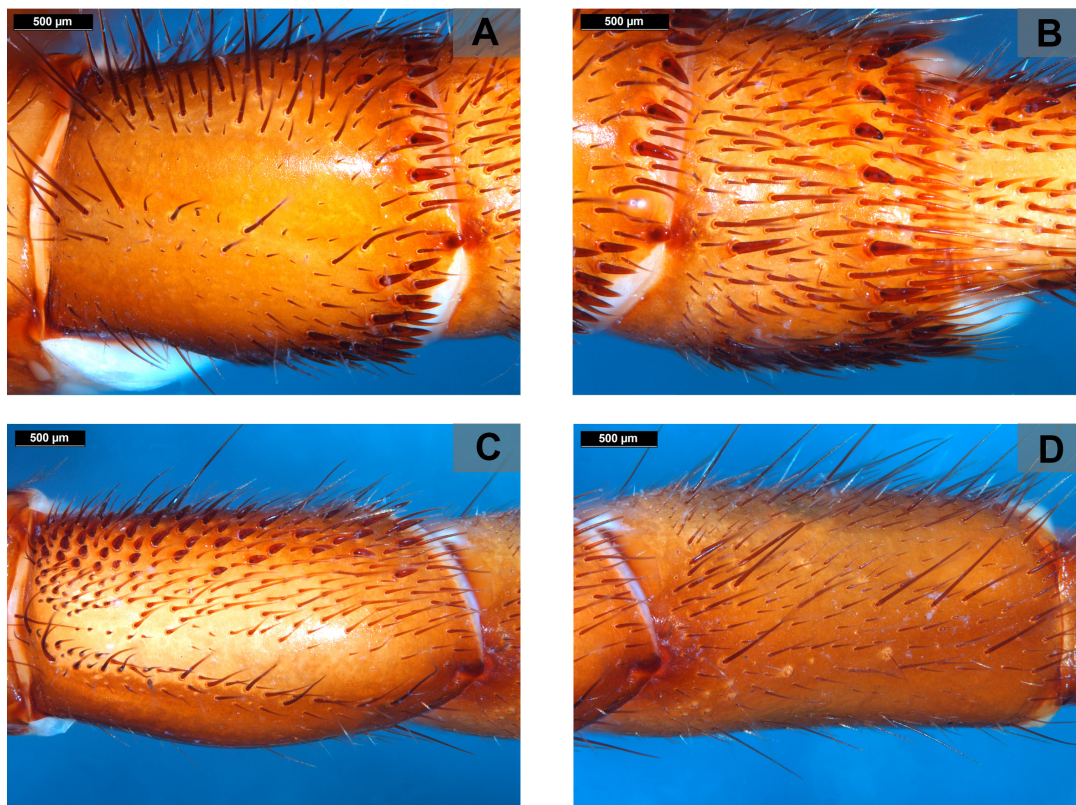


FIGURE 82 – *Actinopus itapitocai* n. sp., female: A–D MZSP 22113: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

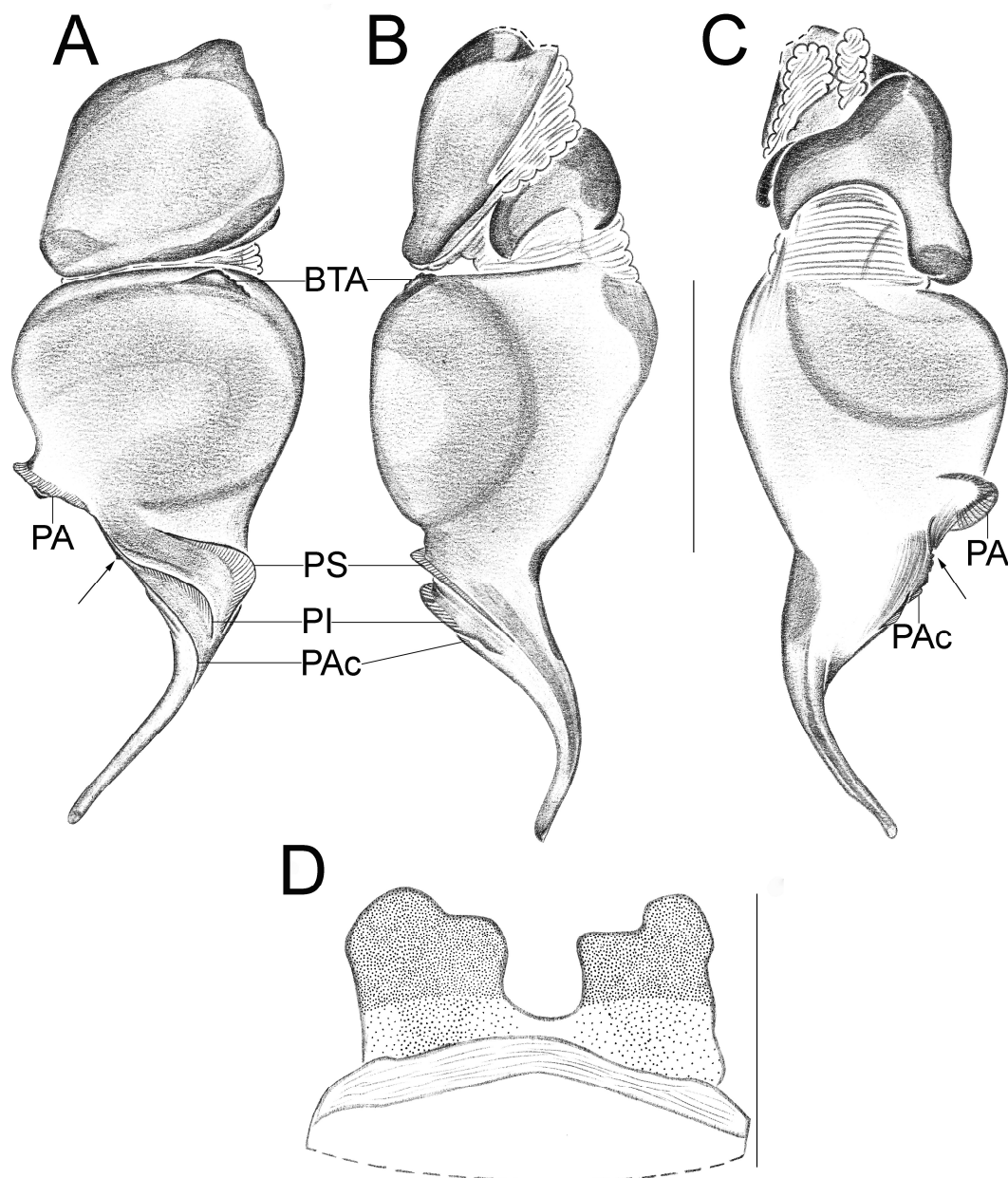


FIGURE 83 – *Actinopus itapitocai* n. sp., male: A–C MCN 3112: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D MZSP 22113: D. Spermathecae, dorsal view. Scale line: 1 mm.

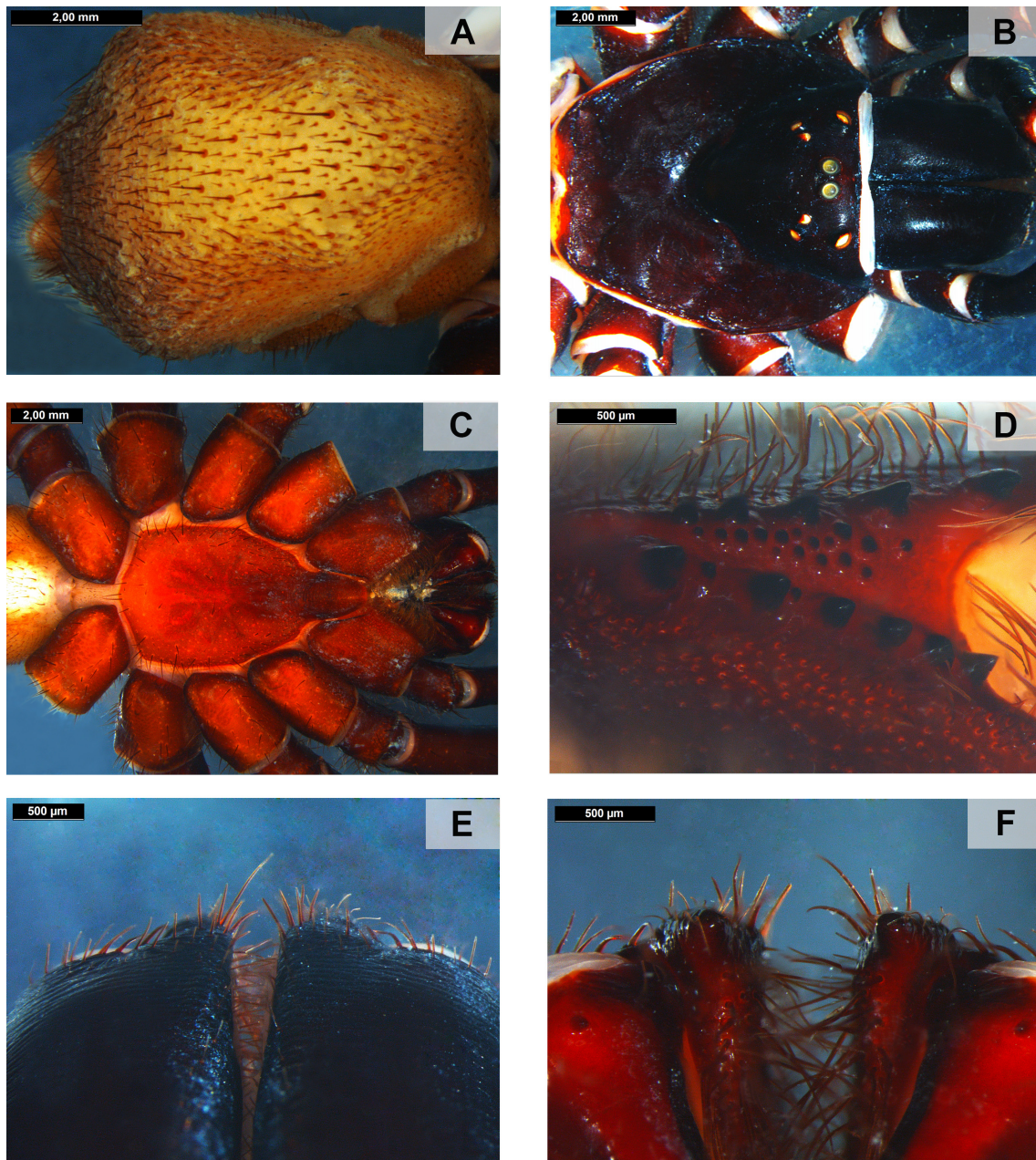


FIGURE 84 – *Actinopus ipioca* n. sp., male: A–F IBSP 112593: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

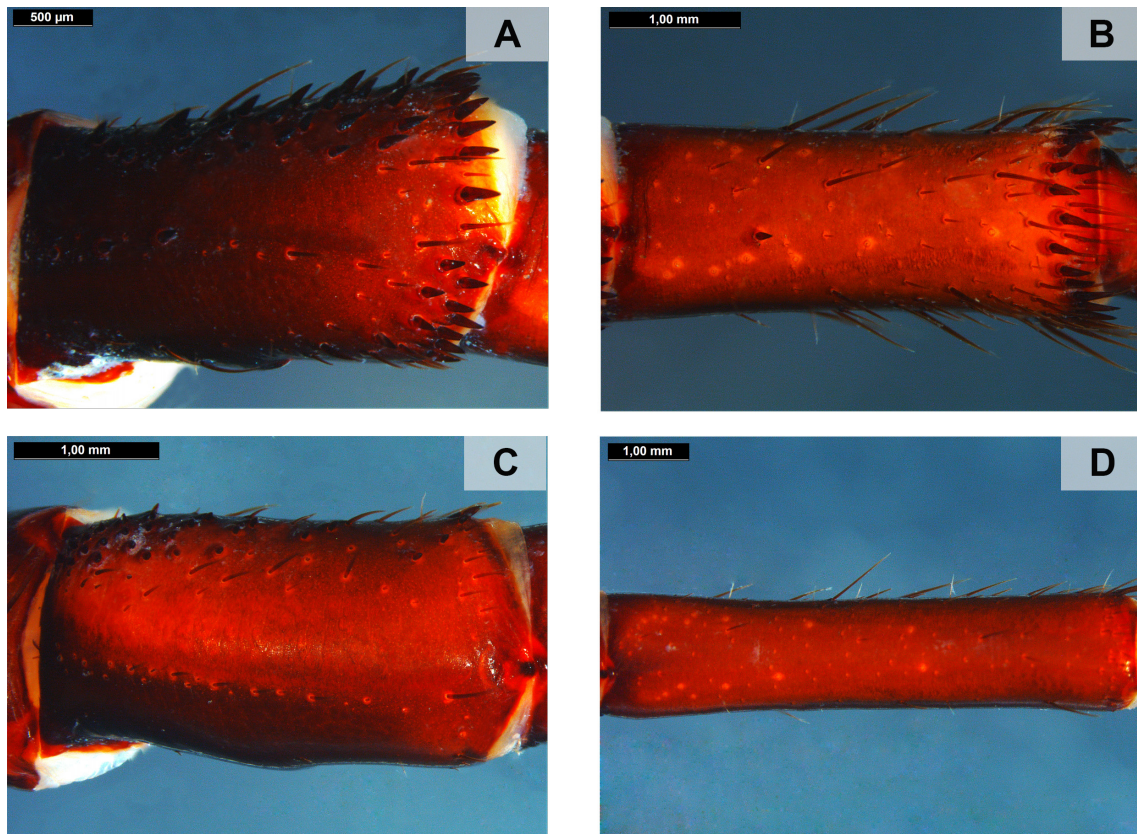


FIGURE 85 – *Actinopus ipioca* n. sp., male: A–D IBSP 112595: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

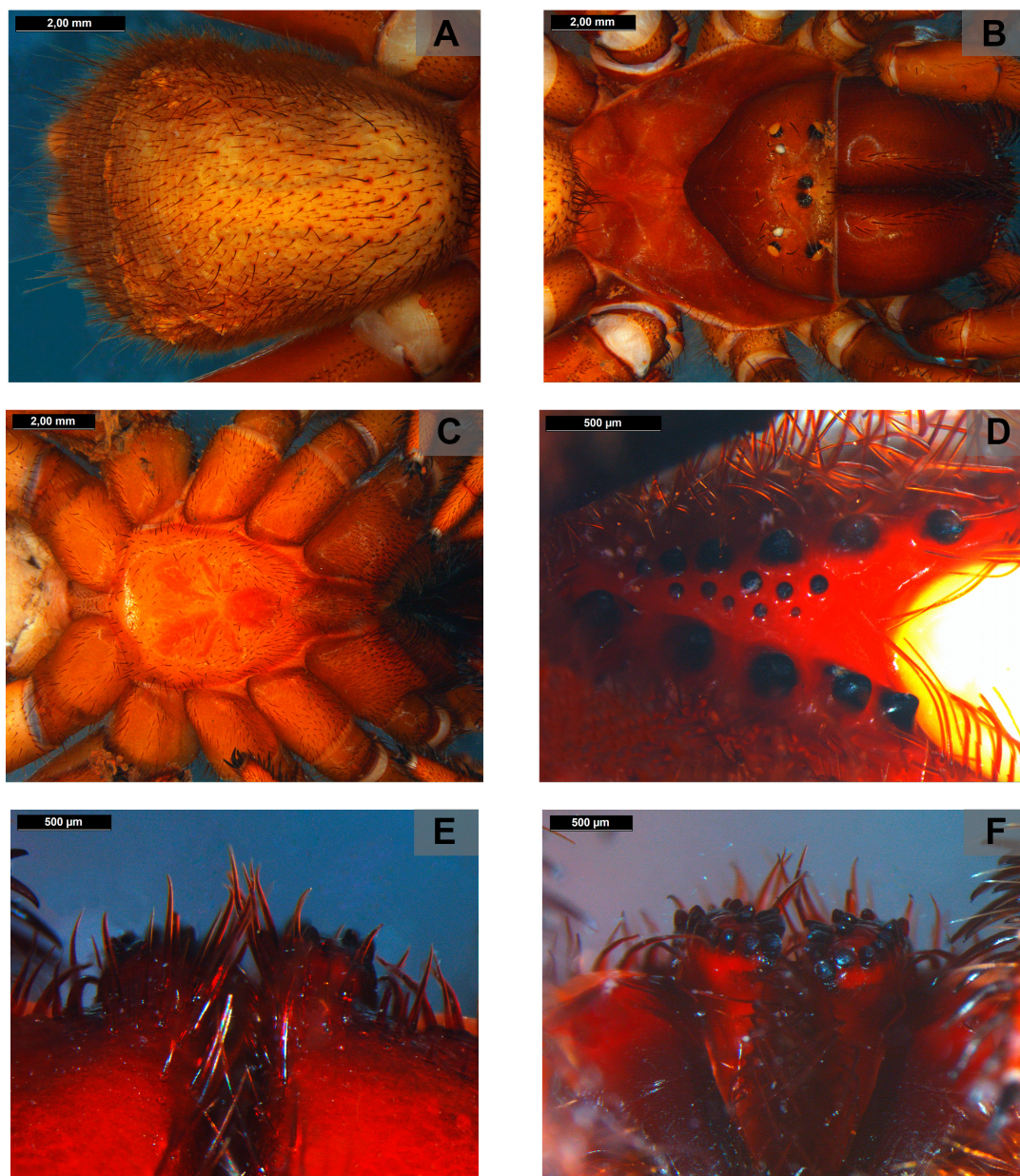


FIGURE 86 – *Actinopus ipioca* n. sp., female: A-F IBSP: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

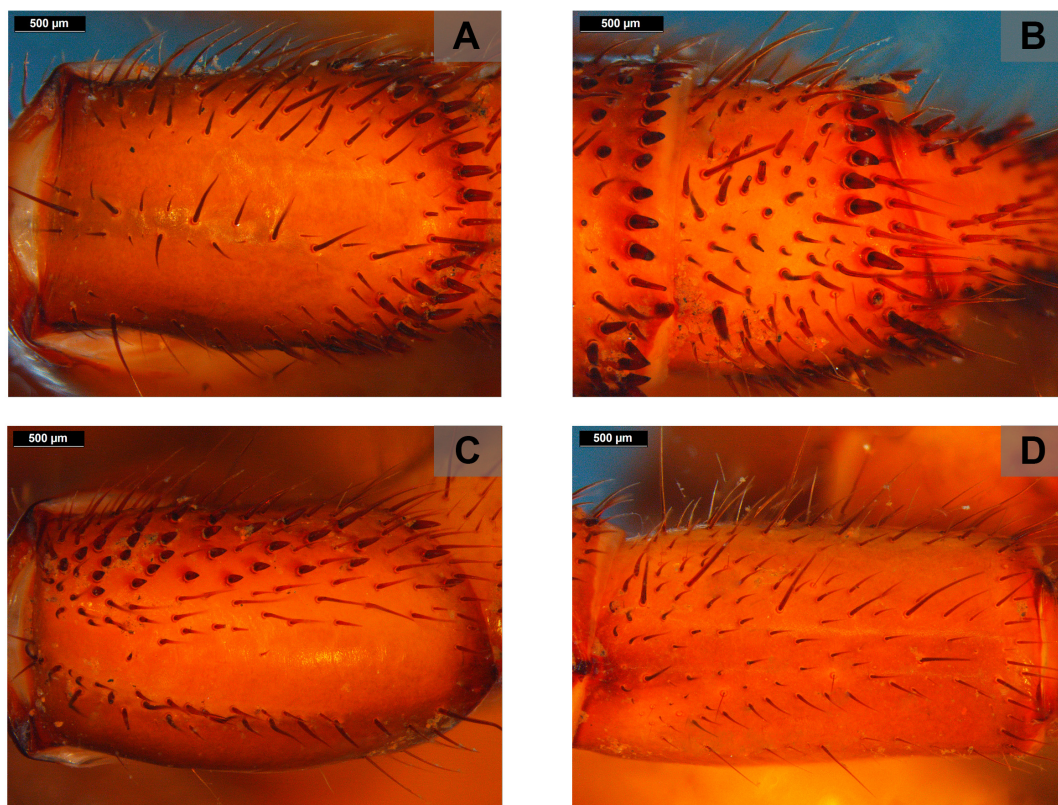


FIGURE 87 – *Actinopus ipioca* n. sp., female: A-D IBSP: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

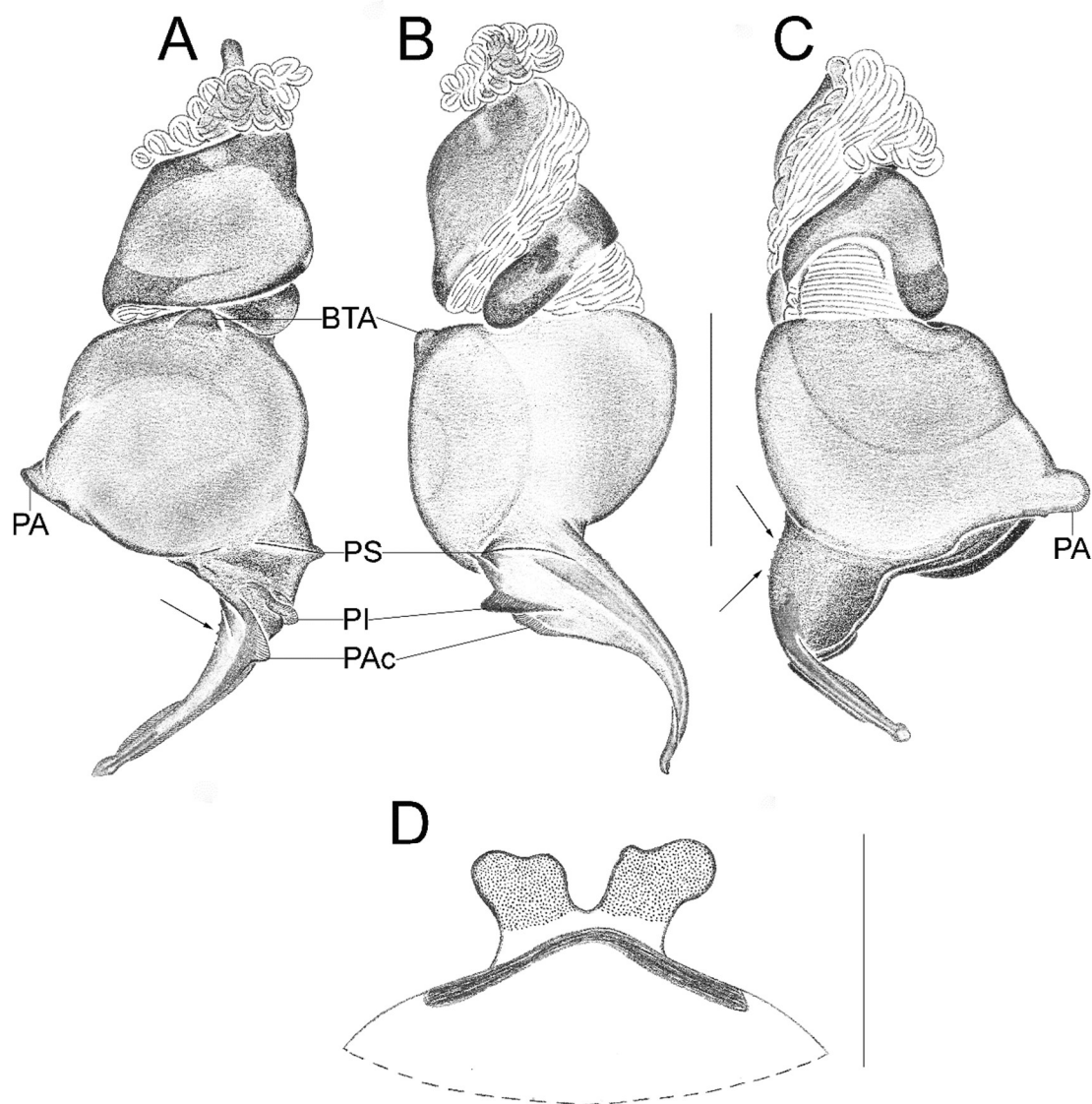


FIGURE 88 – *Actinopus ipioca* n. sp., male: A–C IBSP 112597: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D IBSP: D. Spermathecae, dorsal view. Scale line: 1 mm.

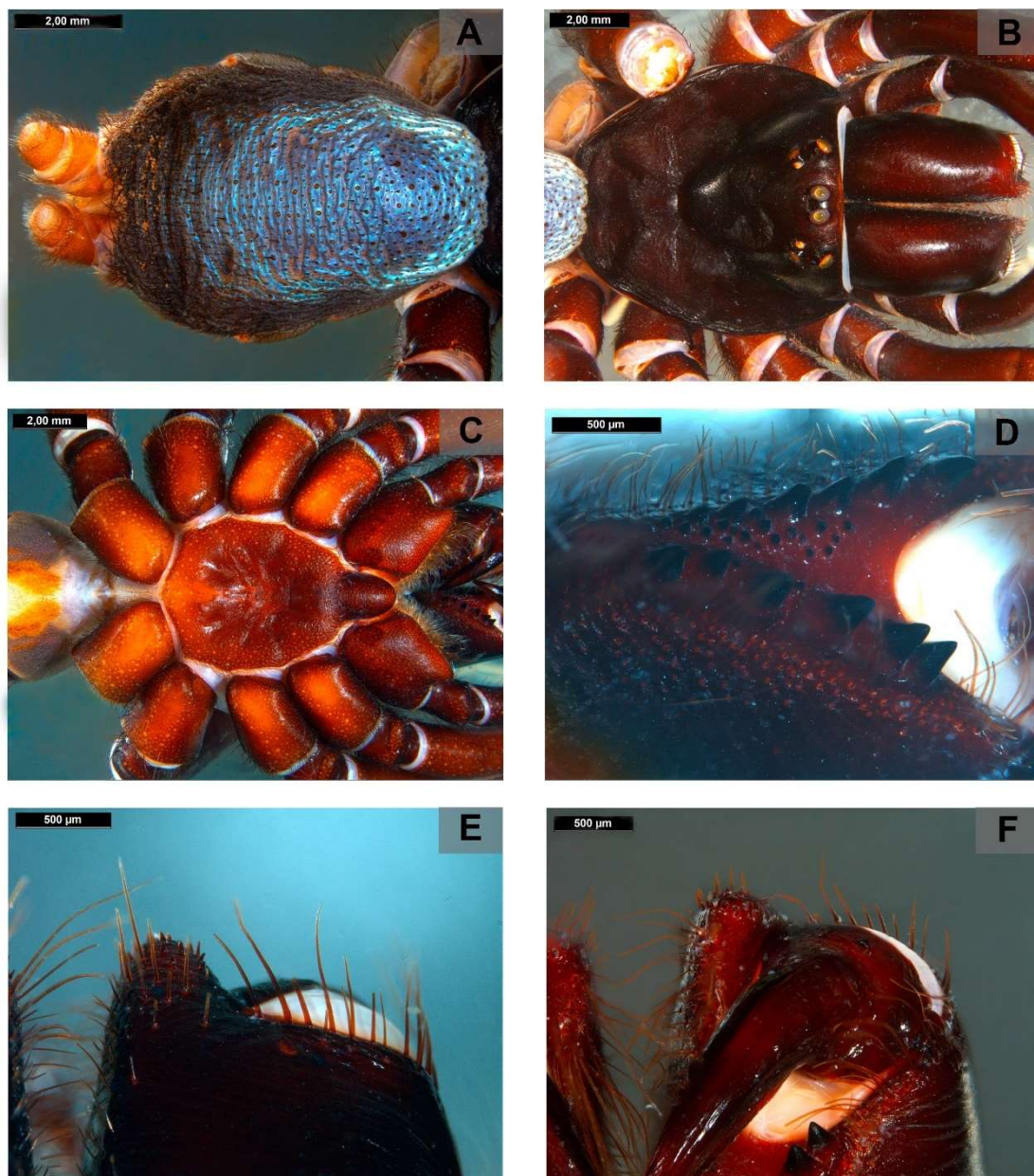


FIGURE 89 – *Actinopus itaqui* n. sp., male: A-F MCN 26526: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

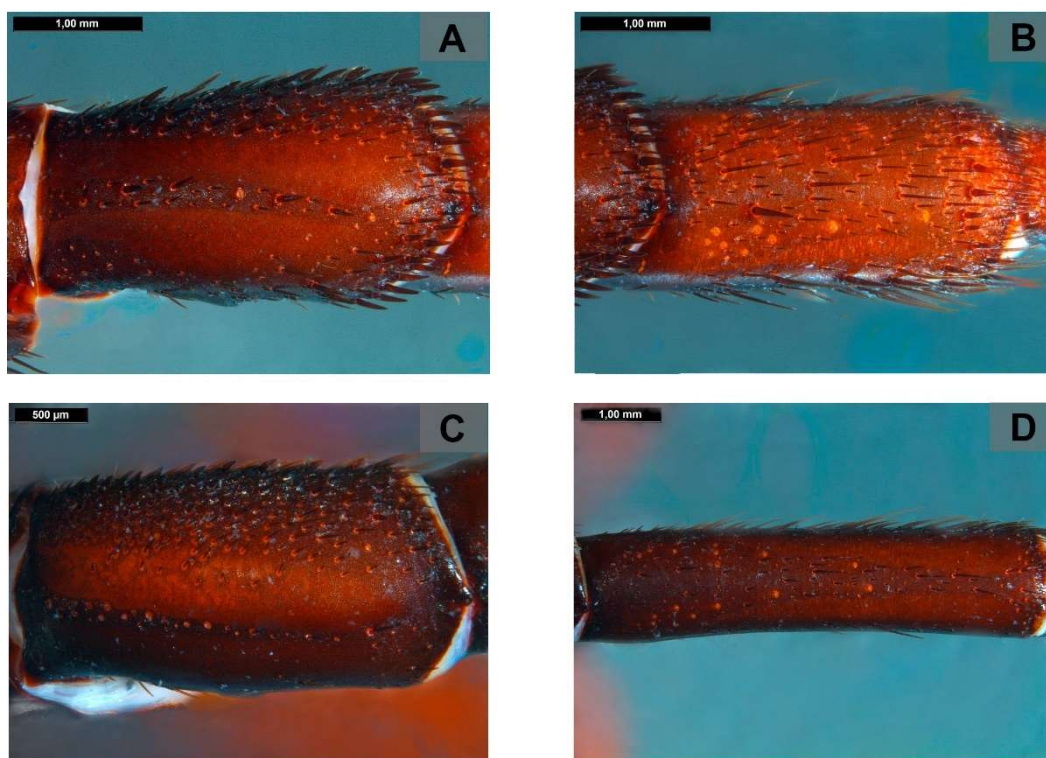


FIGURE 90 – *Actinopus itaqui* n. sp., male: A-D MCN 26526: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

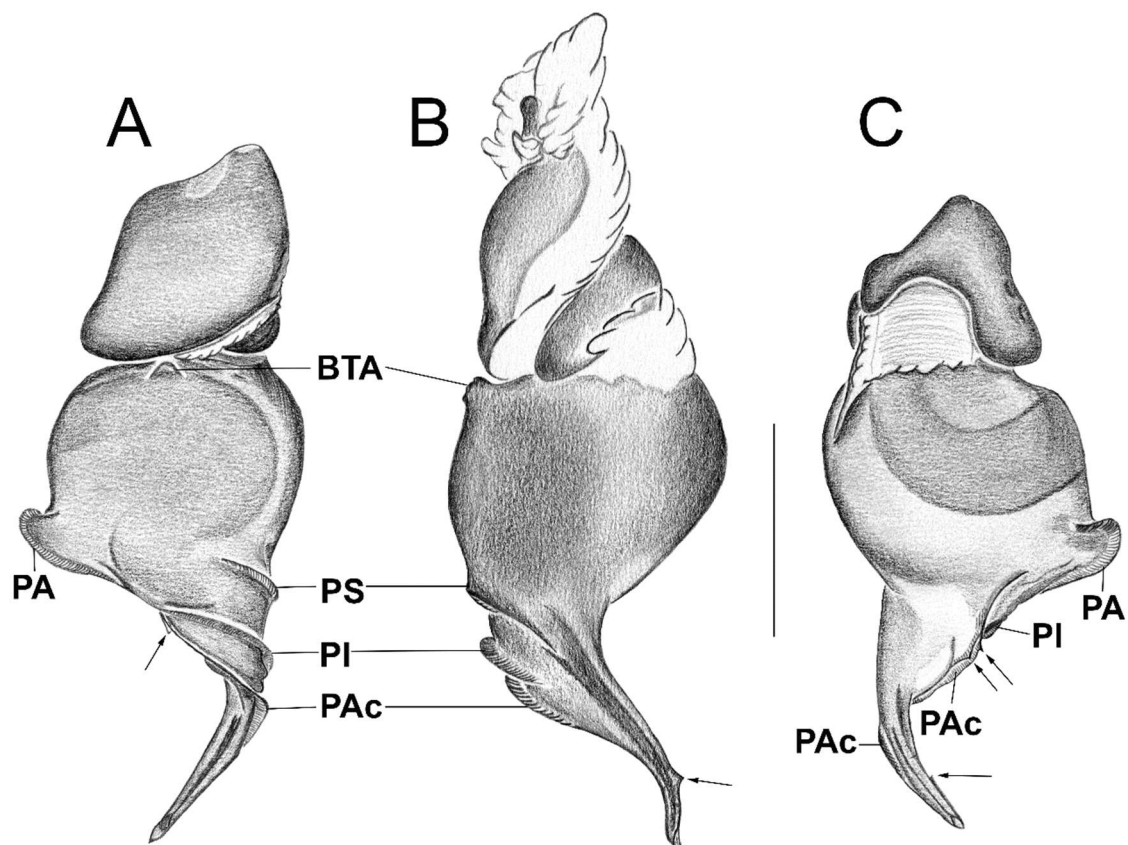


FIGURE 91 – *Actinopus itaqui* n. sp., male: A–C MPEG 26526: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

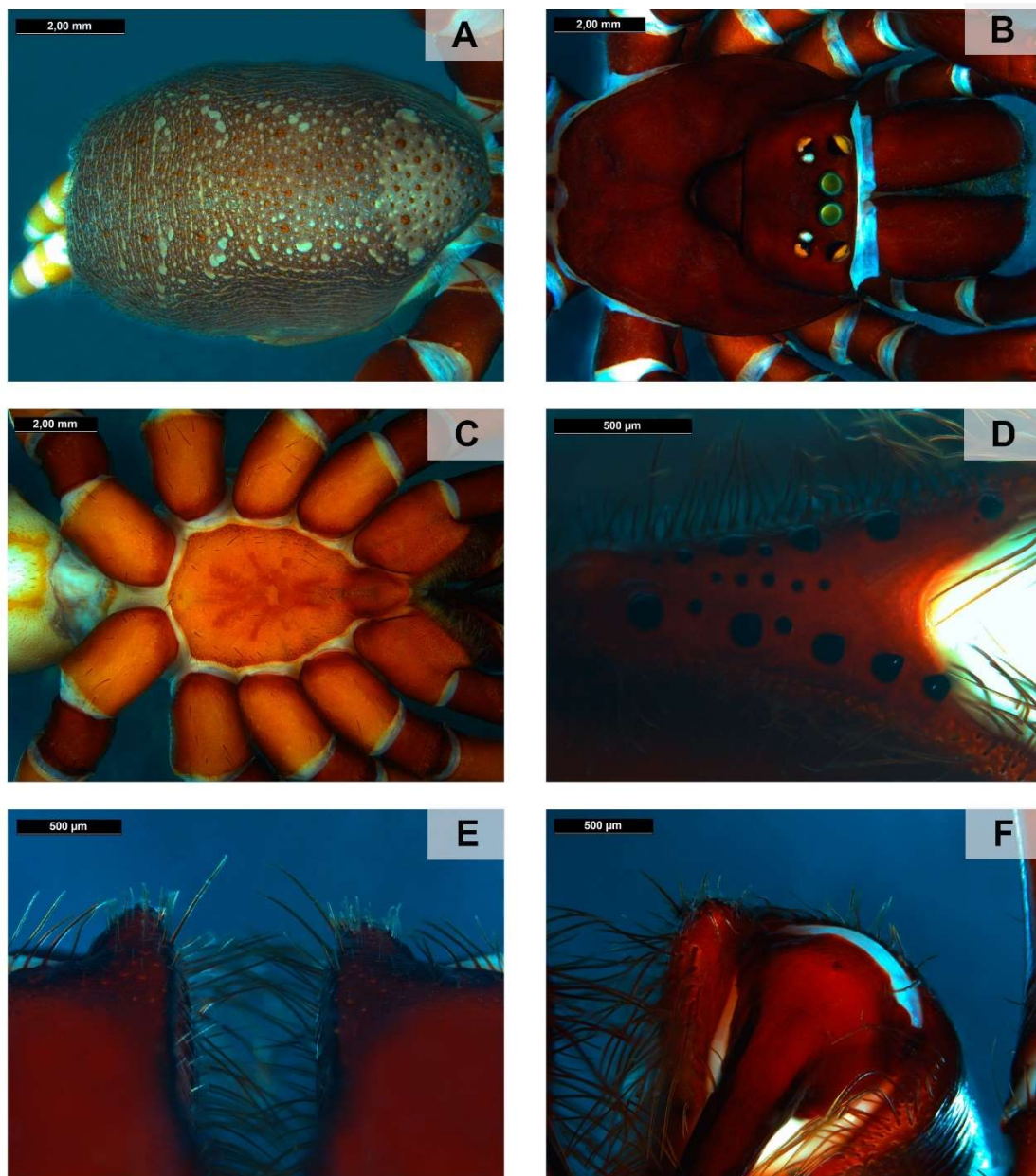


FIGURE 92 – *Actinopus xingu* n. sp., male: A–F MPEG 239: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

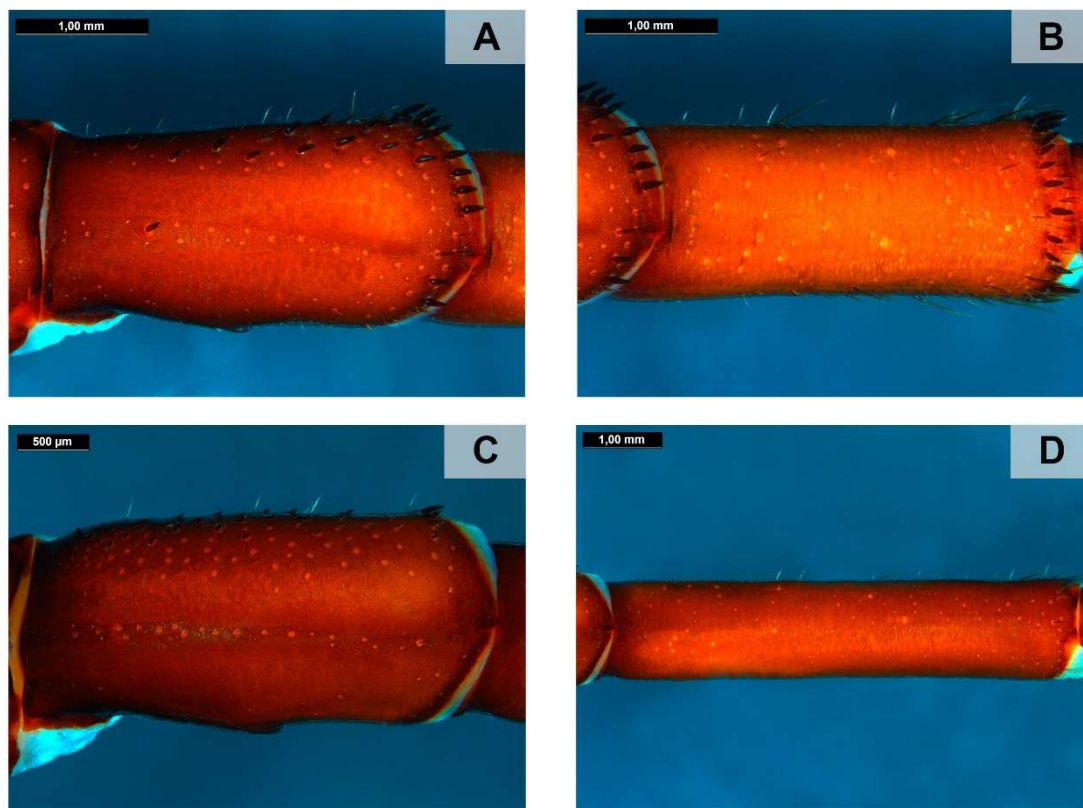


FIGURE 93 – *Actinopus xingu* n. sp., male: A–D MPEG 239: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

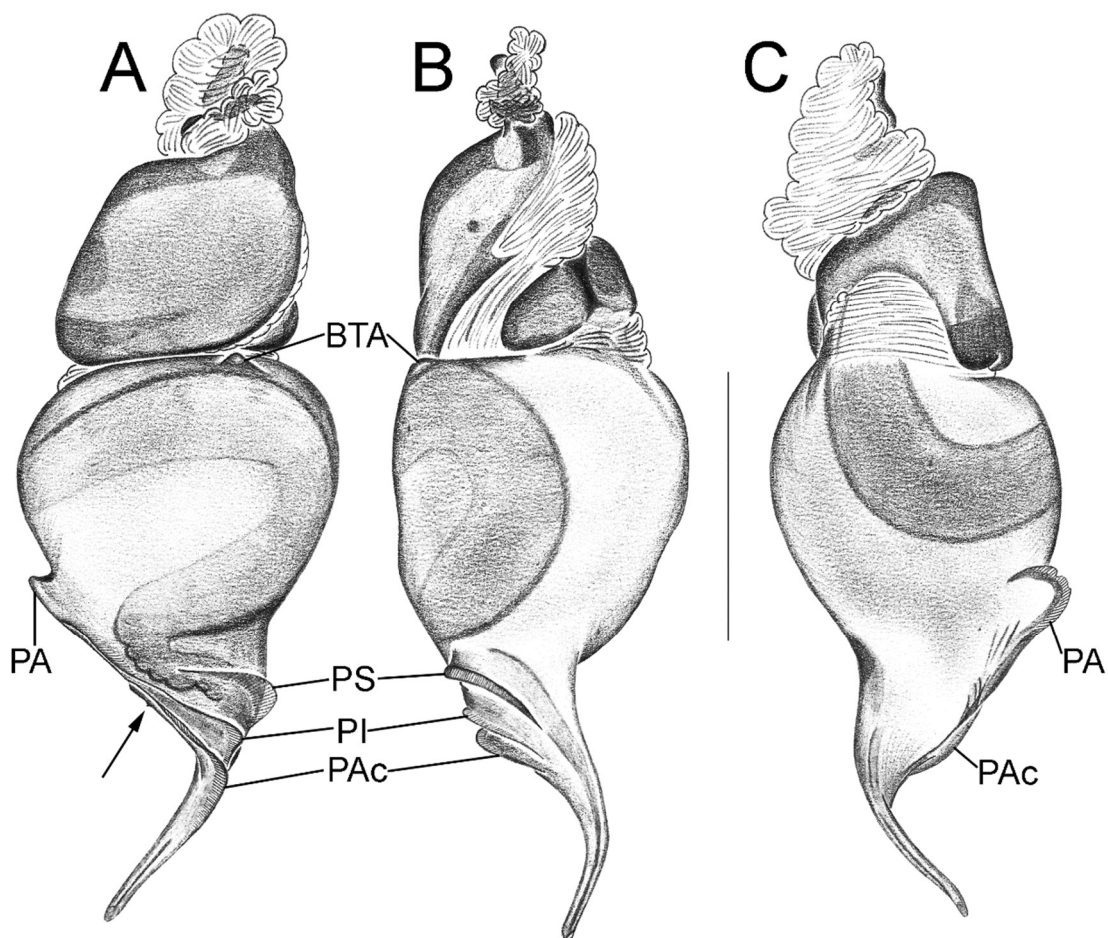


FIGURE 94 – *Actinopus xingu* n. sp., male: A–C MPEG 239: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrow: Serrated area. Scale line: 1 mm.

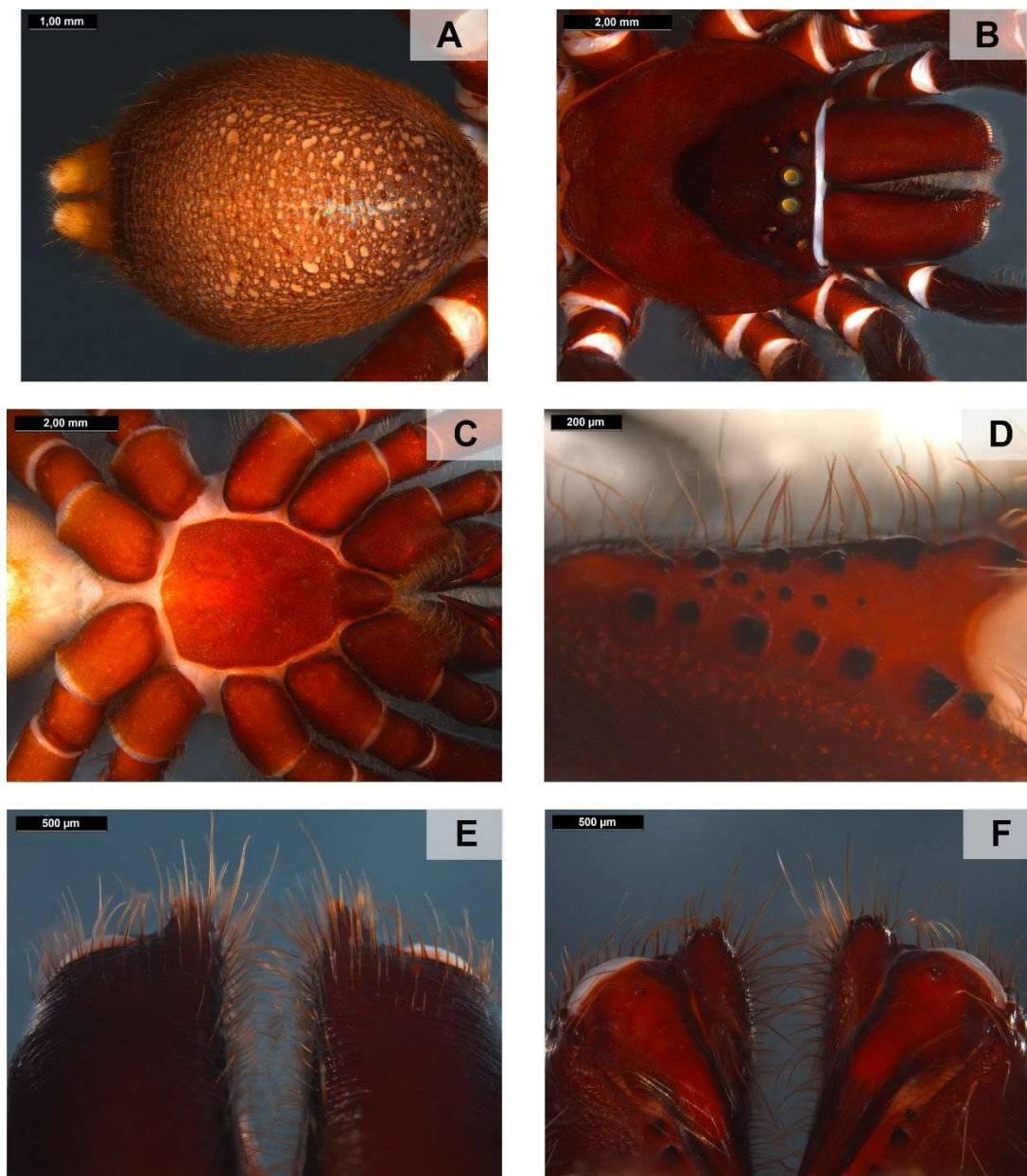


FIGURE 95 – *Actinopus mesa* n. sp., male: A–F MCN 28054: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

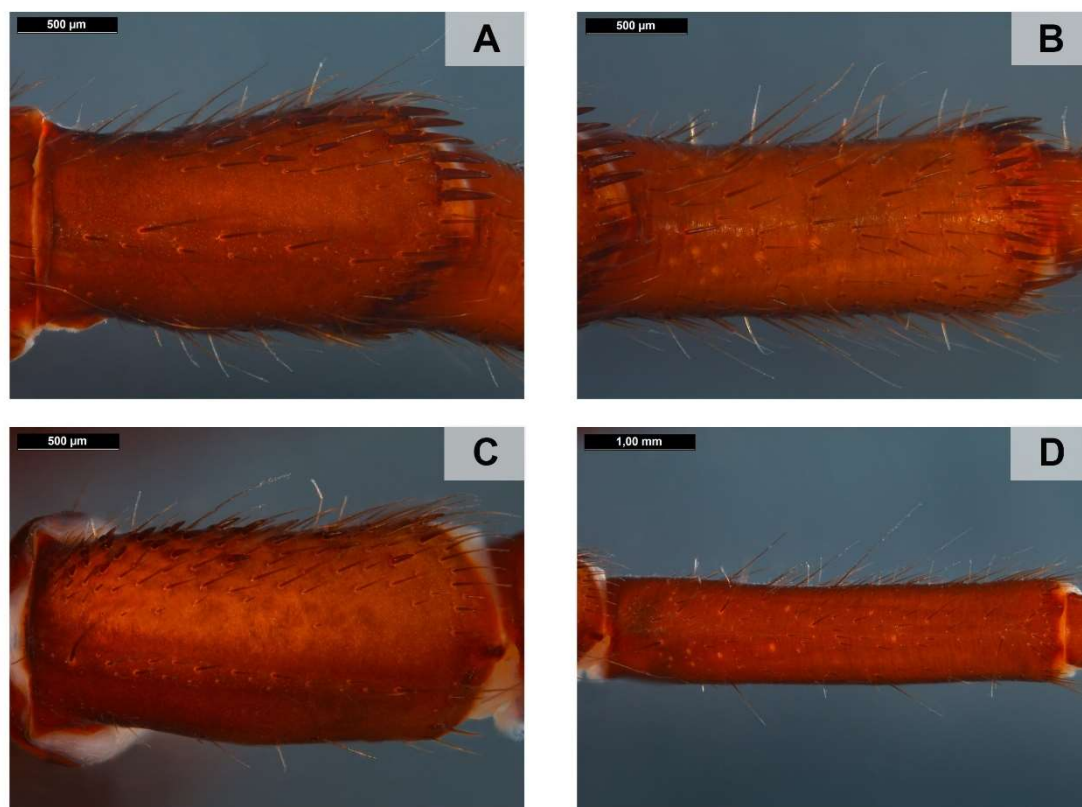


FIGURE 96 – *Actinopus mesa* n. sp., male: A–D MCN 28054: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

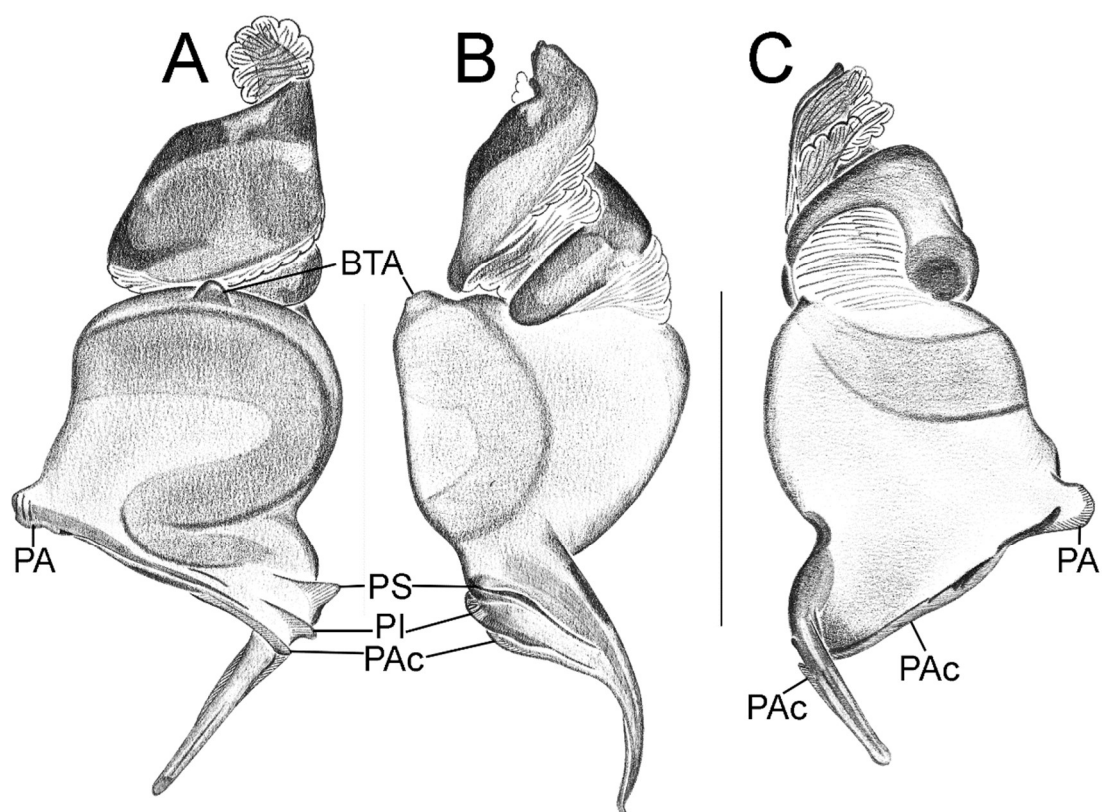


FIGURE 97 – *Actinopus mesa* n. sp., male: A–C MCN 28054: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

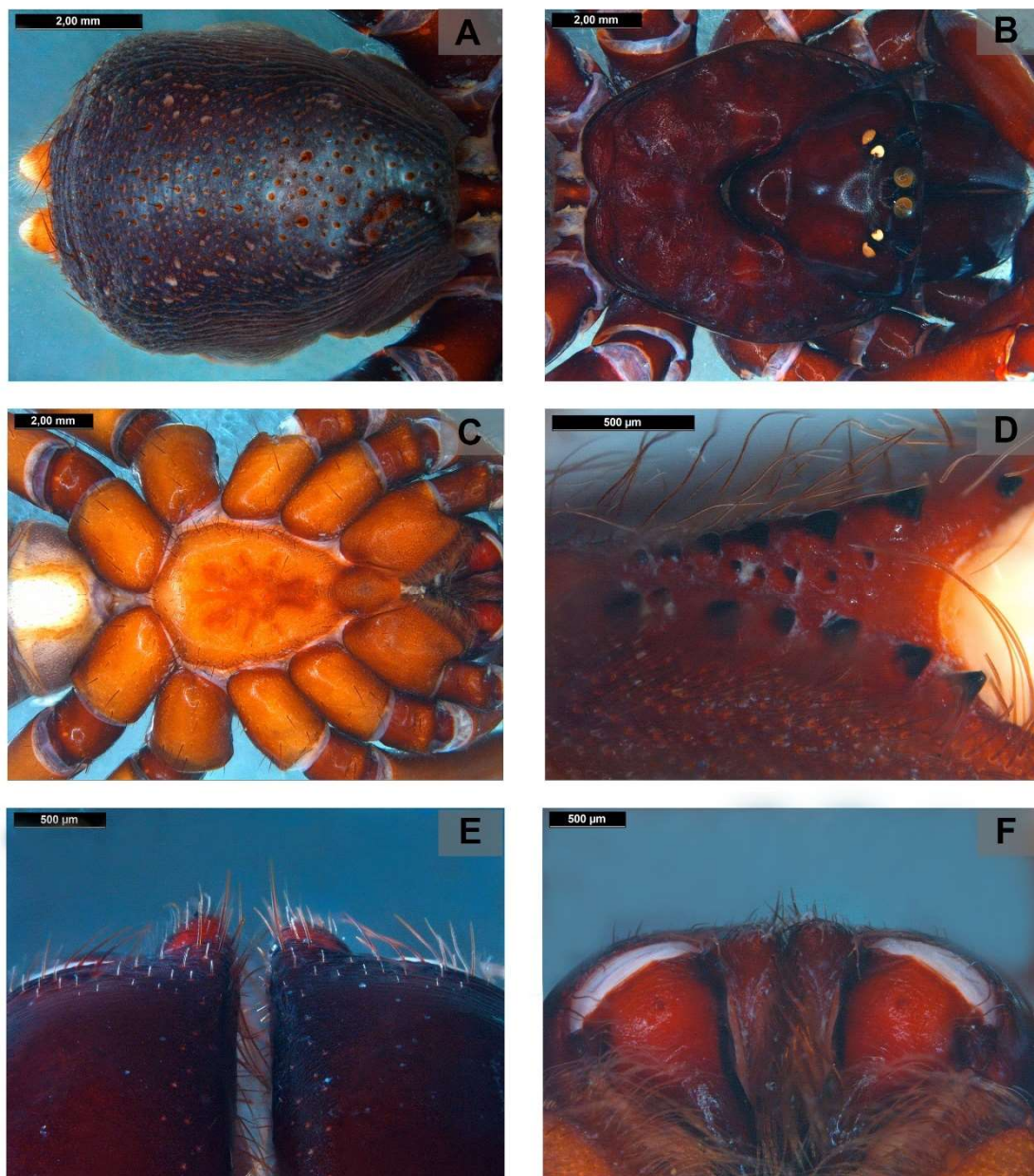


FIGURE 98 – *Actinopus caxiuana* n. sp., male: A–F MPEG 2538: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

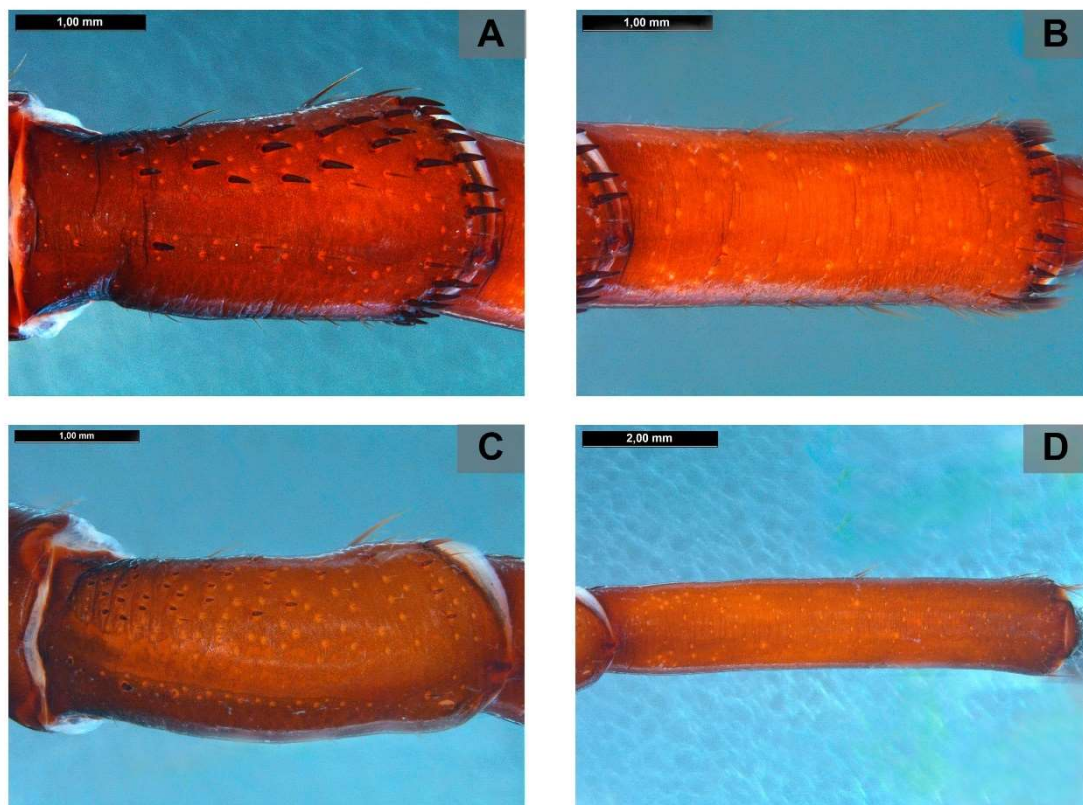


FIGURE 99 – *Actinopus caxiuana* n. sp., male: A–D MPEG 2538: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

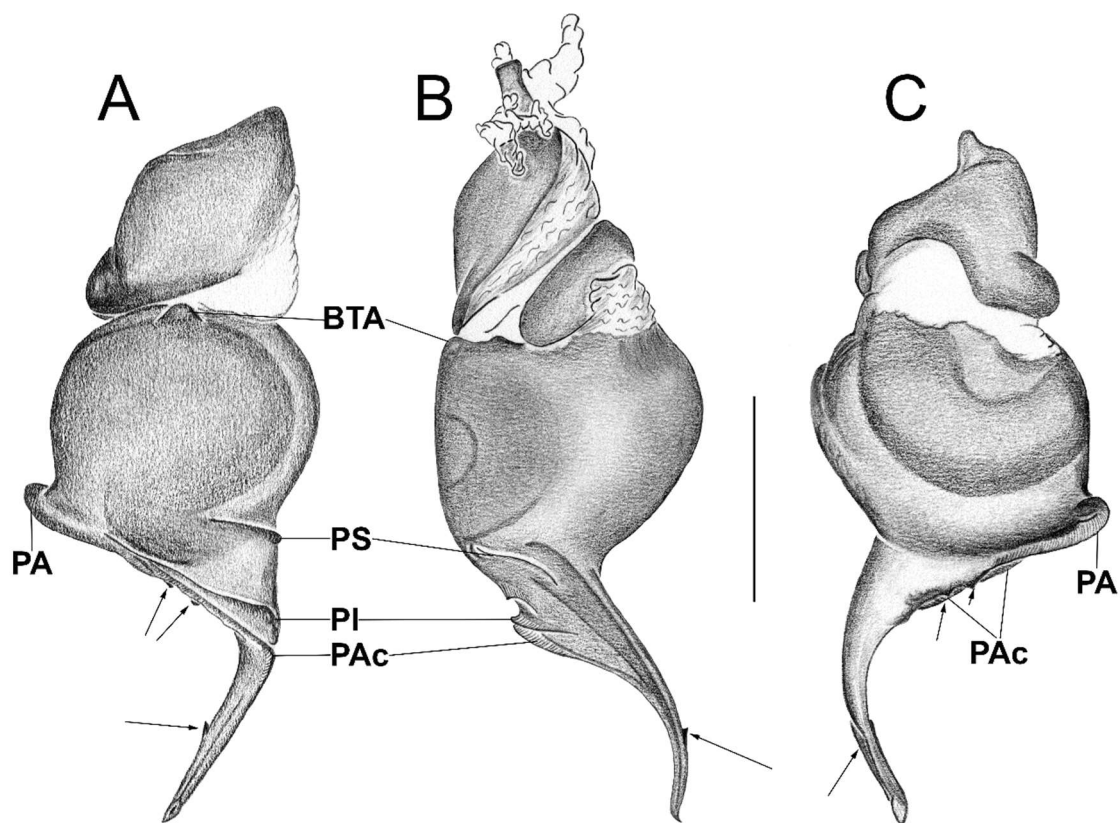


FIGURE 100 – *Actinopus caxiuana* n. sp., male: A–C MPEG 2538: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

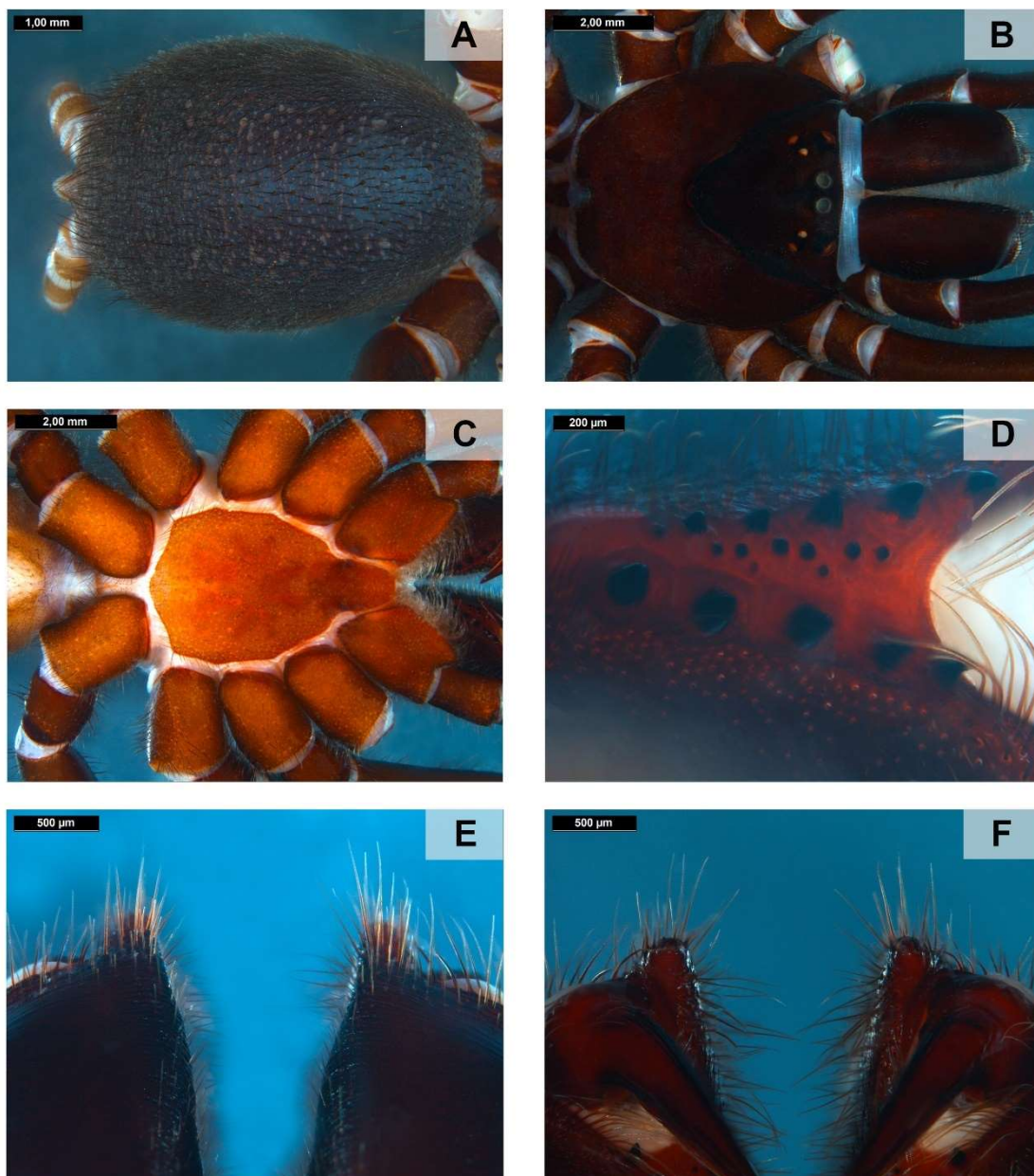


FIGURE 101 – *Actinopus utinga* n. sp., male: A–F UFMG 9918: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

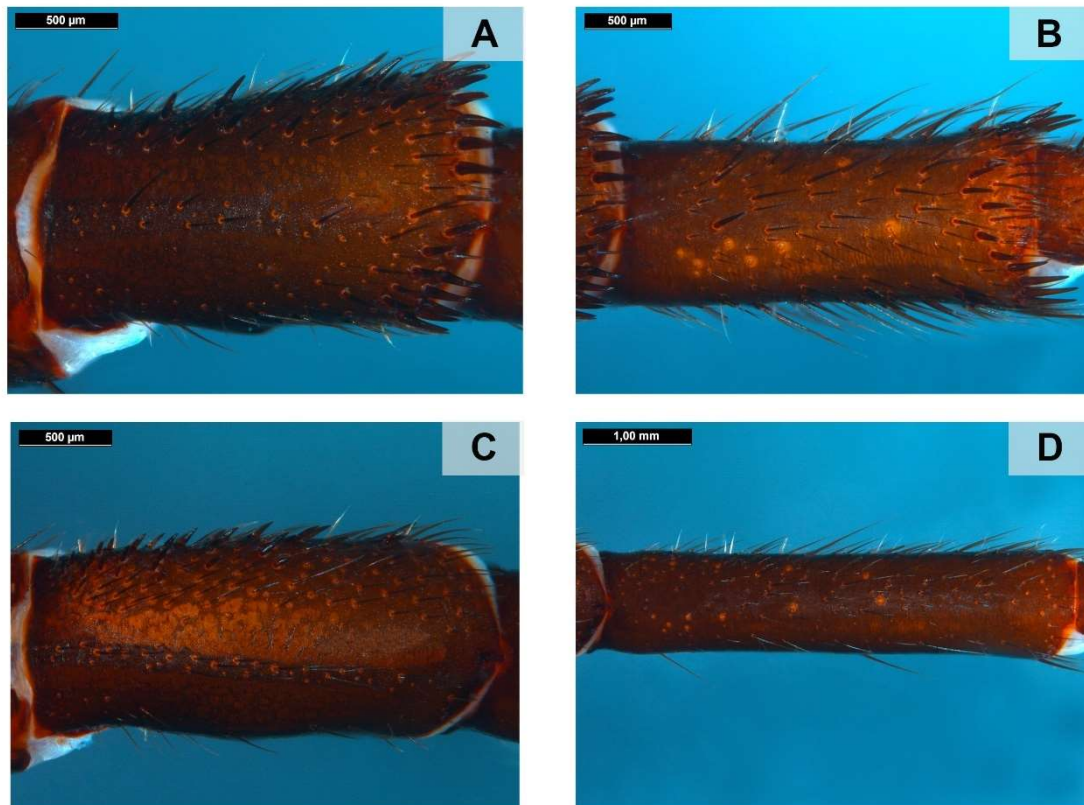


FIGURE 102 – *Actinopus utinga* n. sp., male: A–D UFMG 9918: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

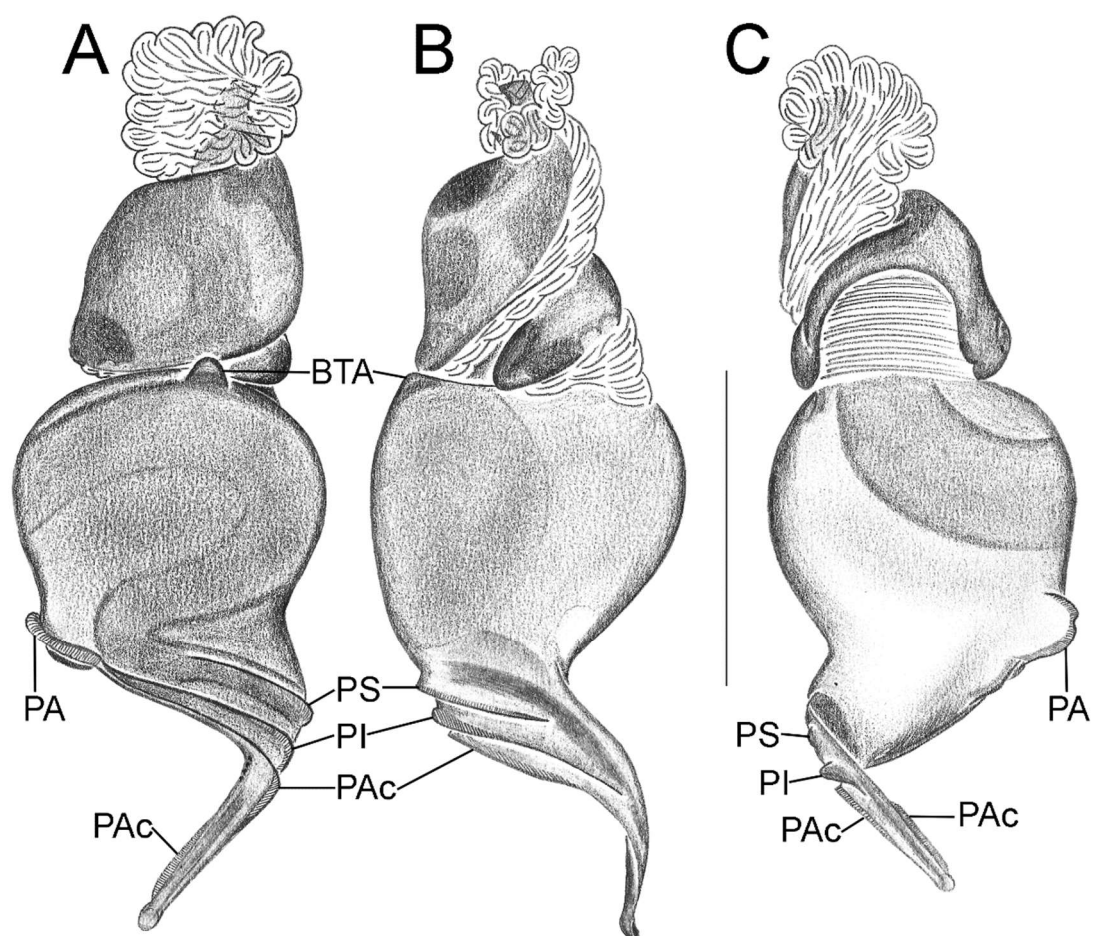


FIGURE 103 – *Actinopus utinga* n. sp., male: A–C UFMG 9918: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAC** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

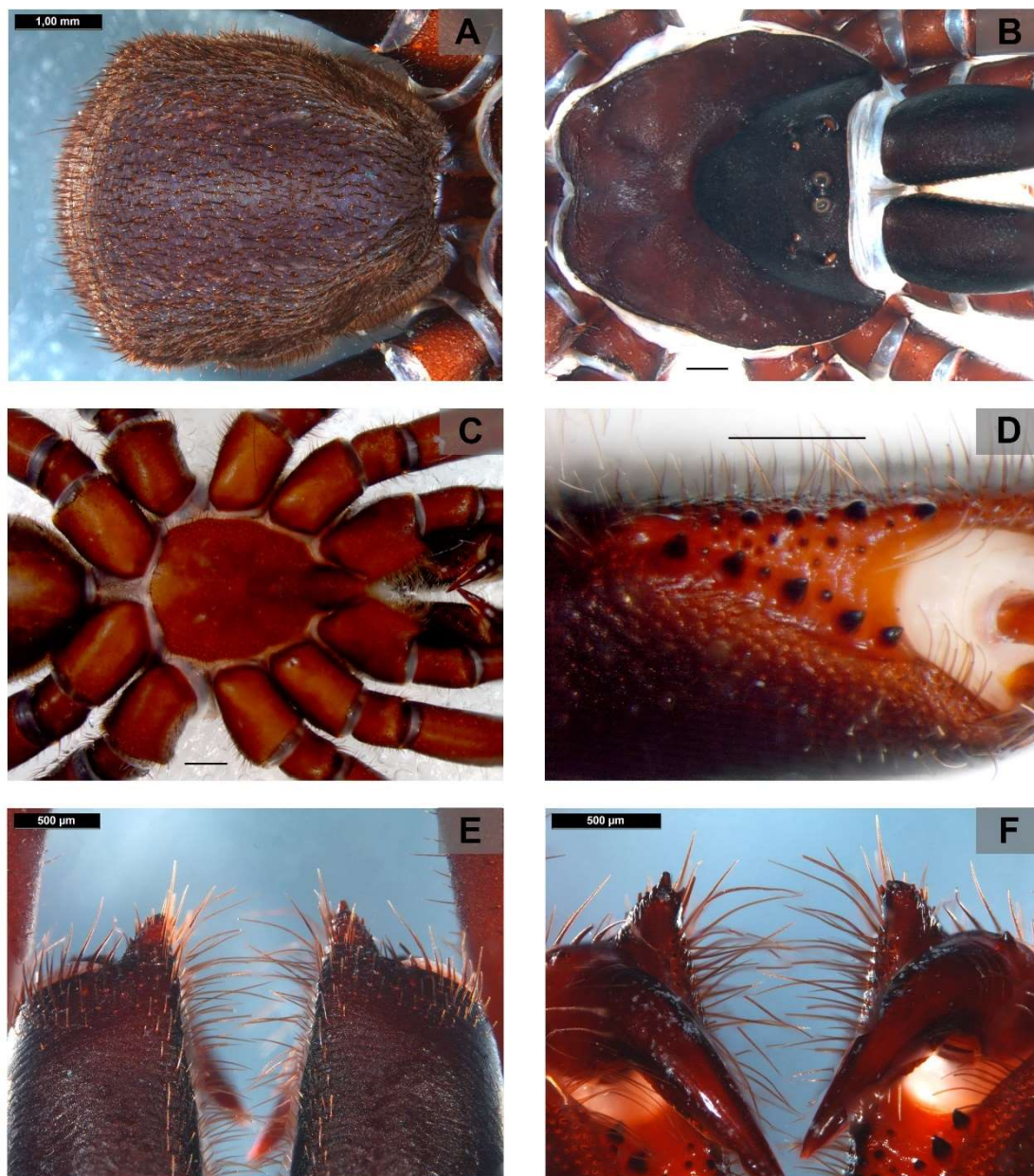


FIGURE 104 – *Actinopus crassipes* (Keyserling, 1891), male: A–F MCN 21999: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

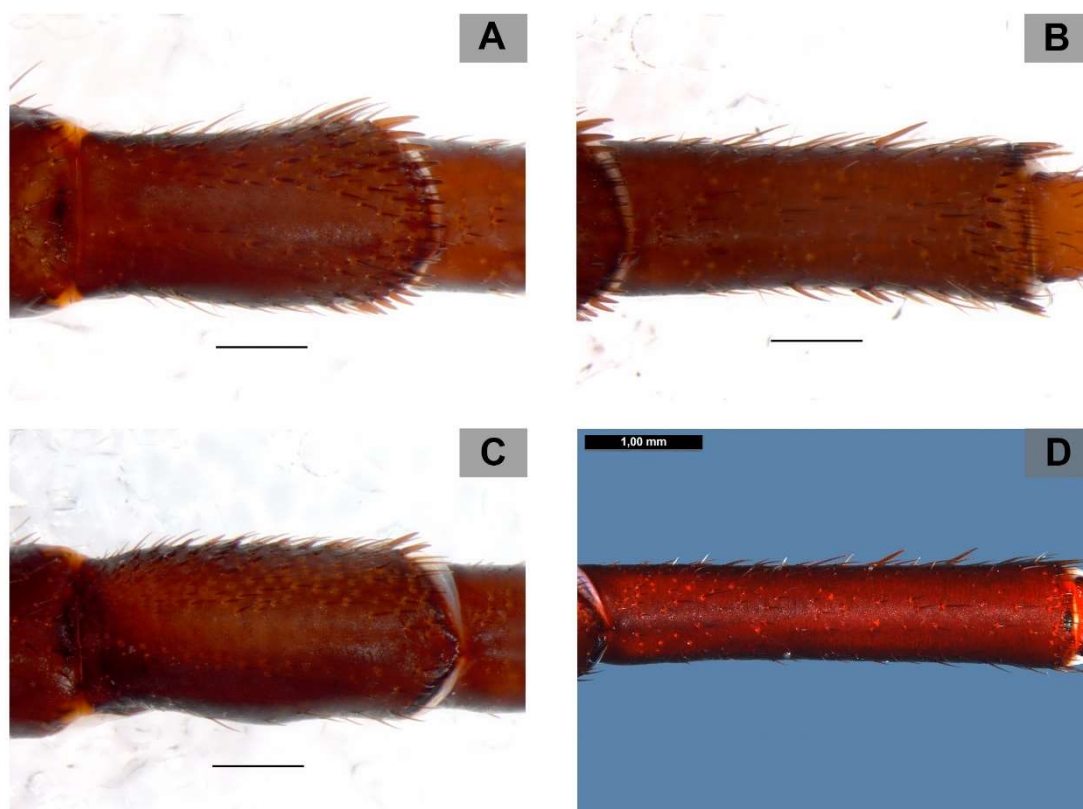


FIGURE 105 – *Actinopus crassipes* (Keyserling, 1891), male: A–D MCN 21999: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

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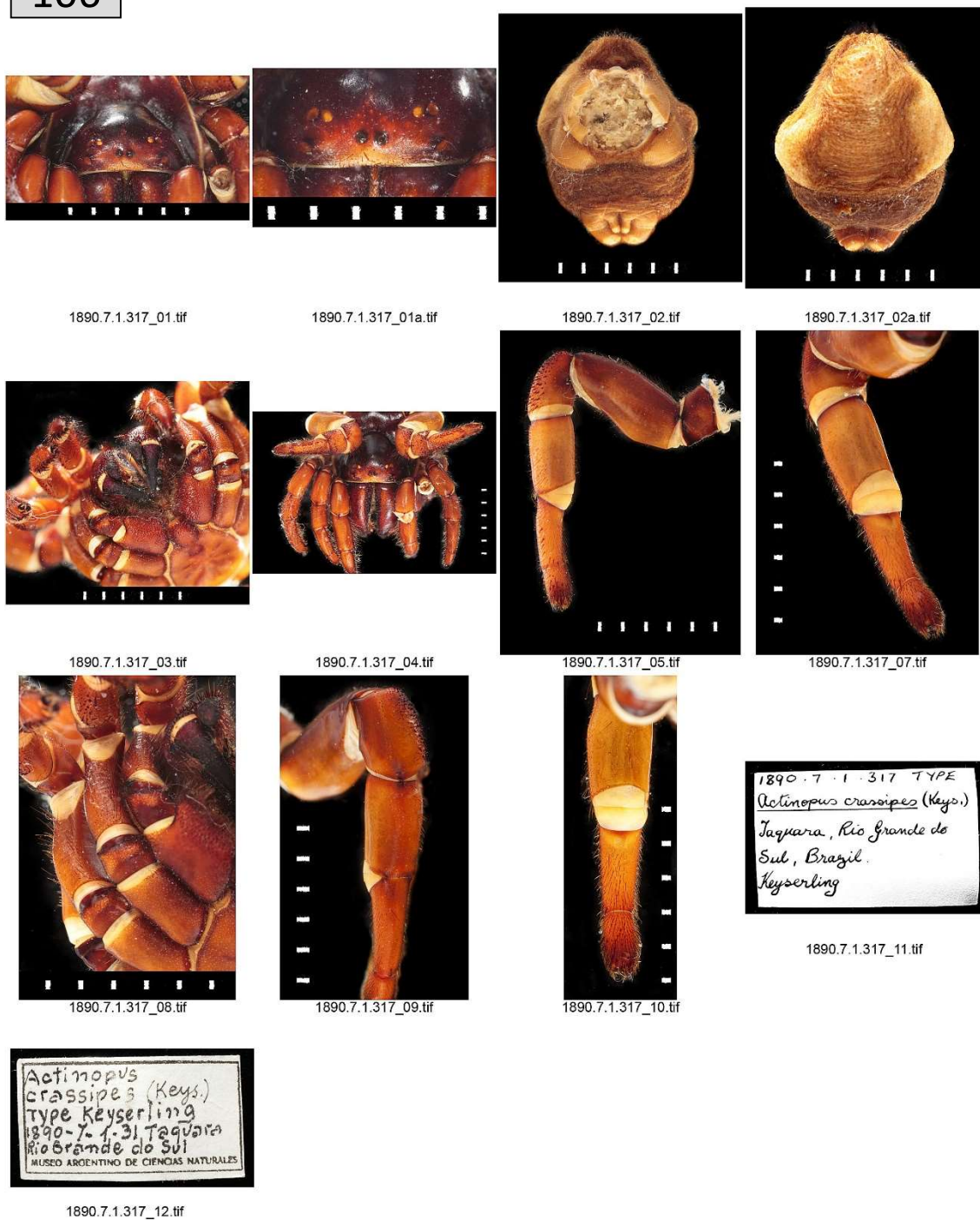


FIGURE 106 – *Actinopus crassipes* (Keyserling, 1891), holotype from NHM, female: 106 NHM: 106. Plate made by Janet Becalloni, with fotos from interest region to search diagnostics characters for *A. crassipes*, female.

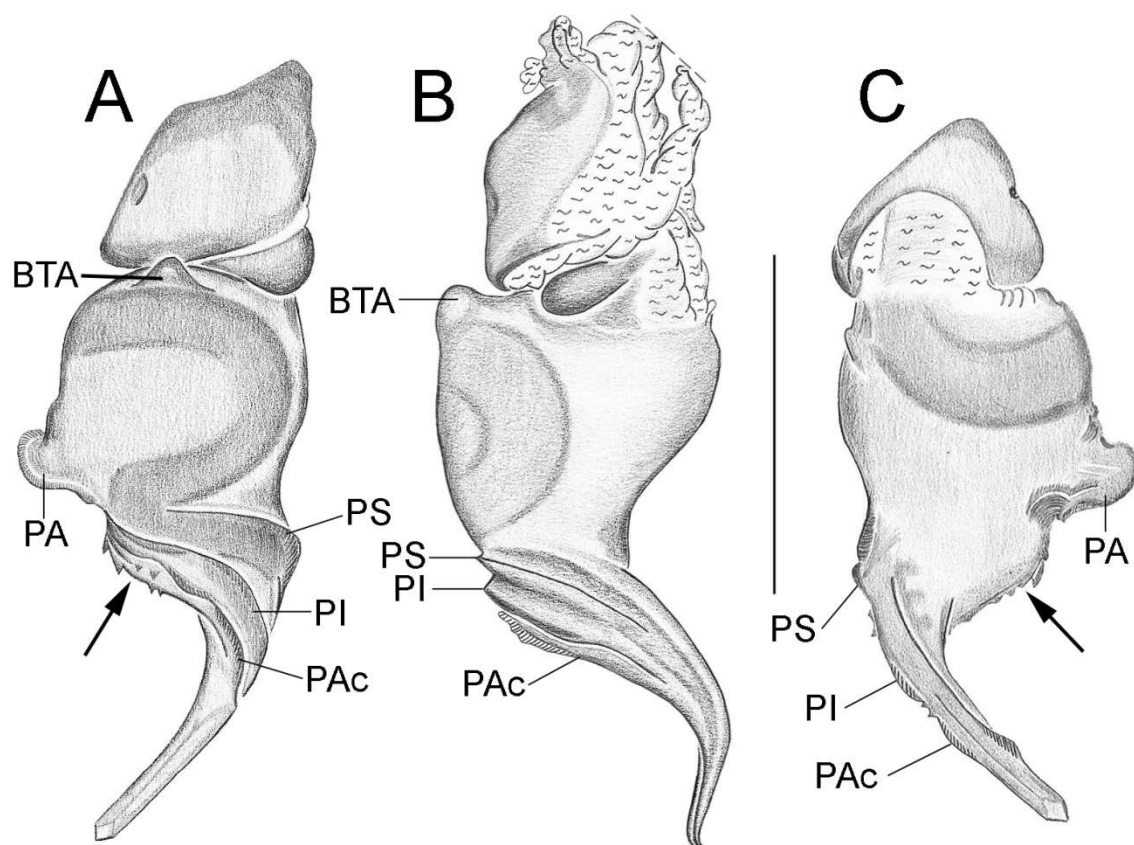


FIGURE 107 – *Actinopus crassipes* (Keyserling, 1891), male: A–C MCN 30740: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

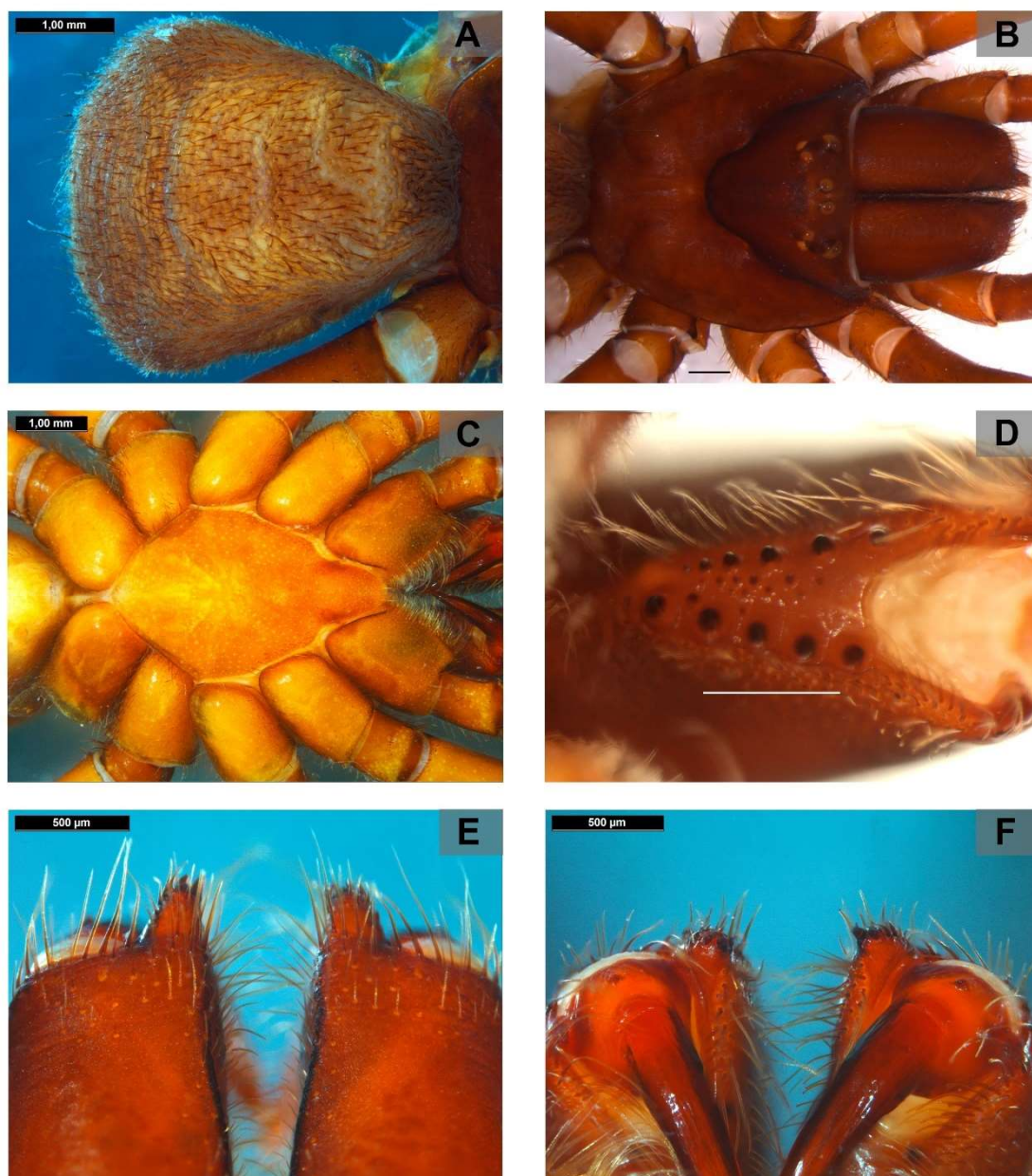


FIGURE 108 – *Actinopus dubiomaculatus* Mello-Leitão, 1923, male: A–F MZSP 7636: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines: A: 0.5 mm; D: 1 mm.

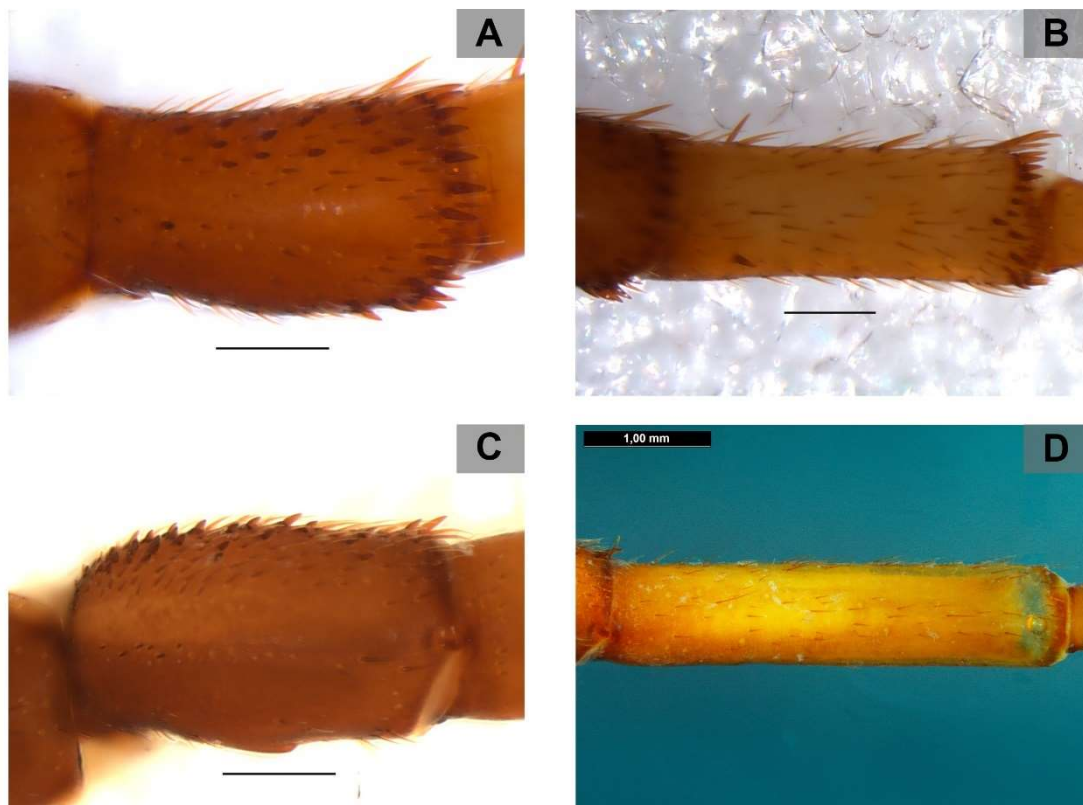


FIGURE 109 – *Actinopus dubiomaculatus* Mello-Leitão, 1923, male: A–D MZSP 7636: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A–C: 0.5 mm.

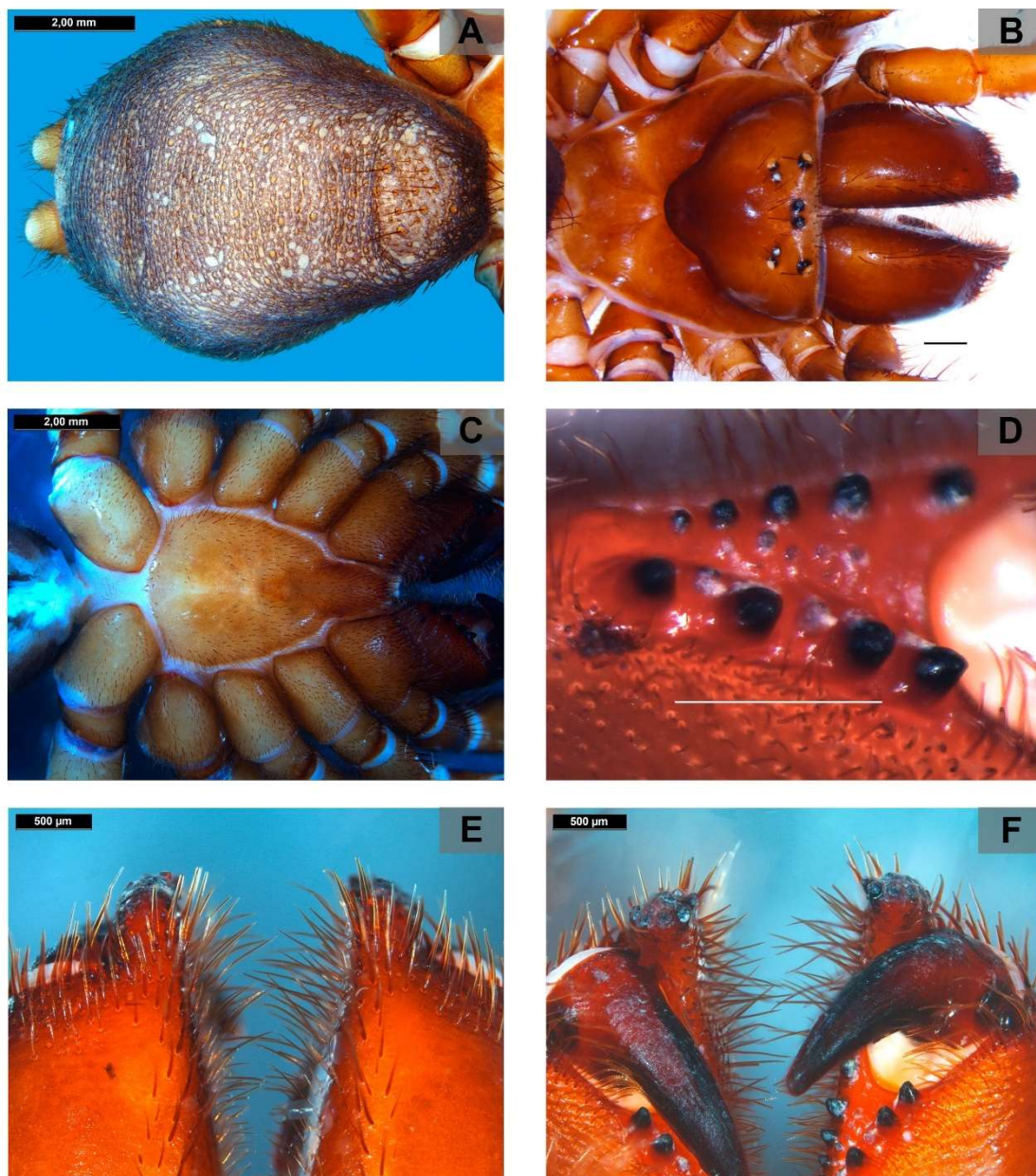


FIGURE 110 – *Actinopus dubiomaculatus* Mello-Leitão, 1923, female: A–F MCN 13243: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines: A: 1mm; D: 0.5 mm.

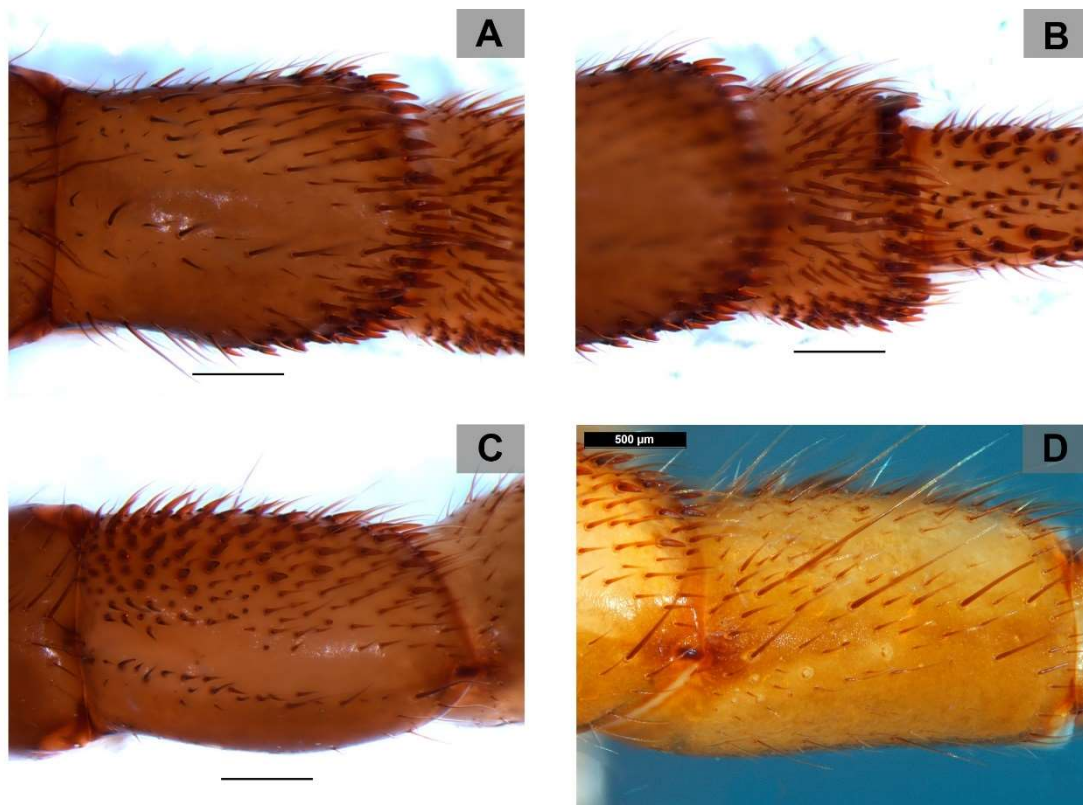


FIGURE 111 – *Actinopus dubiomaculatus* Mello-Leitão, 1923, female: A–D MCN 13243: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A–C: 0.5 mm.

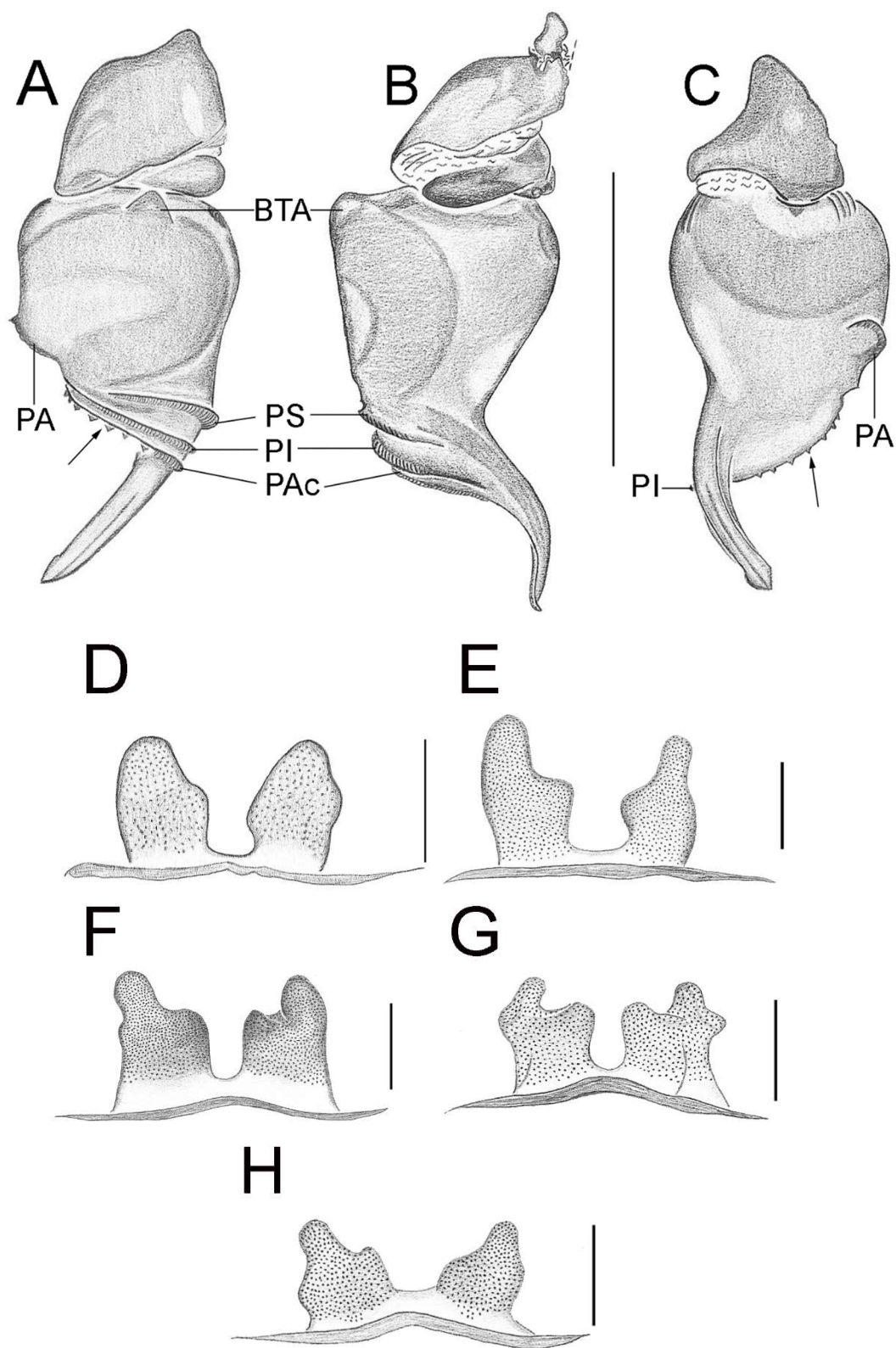


FIGURE 112 – *Actinopus dubiomaculatus* Mello-Leitão, 1923, male: A–C MZSP 7636: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Female: D–H MCN 13243: D; MCN 28470: E; MCTP 3074: F; IBSP 13263: G; IBSP 10565: H. Spermathecae, dorsal view. Scale line: Male: 1 mm, female: 0.5 mm.

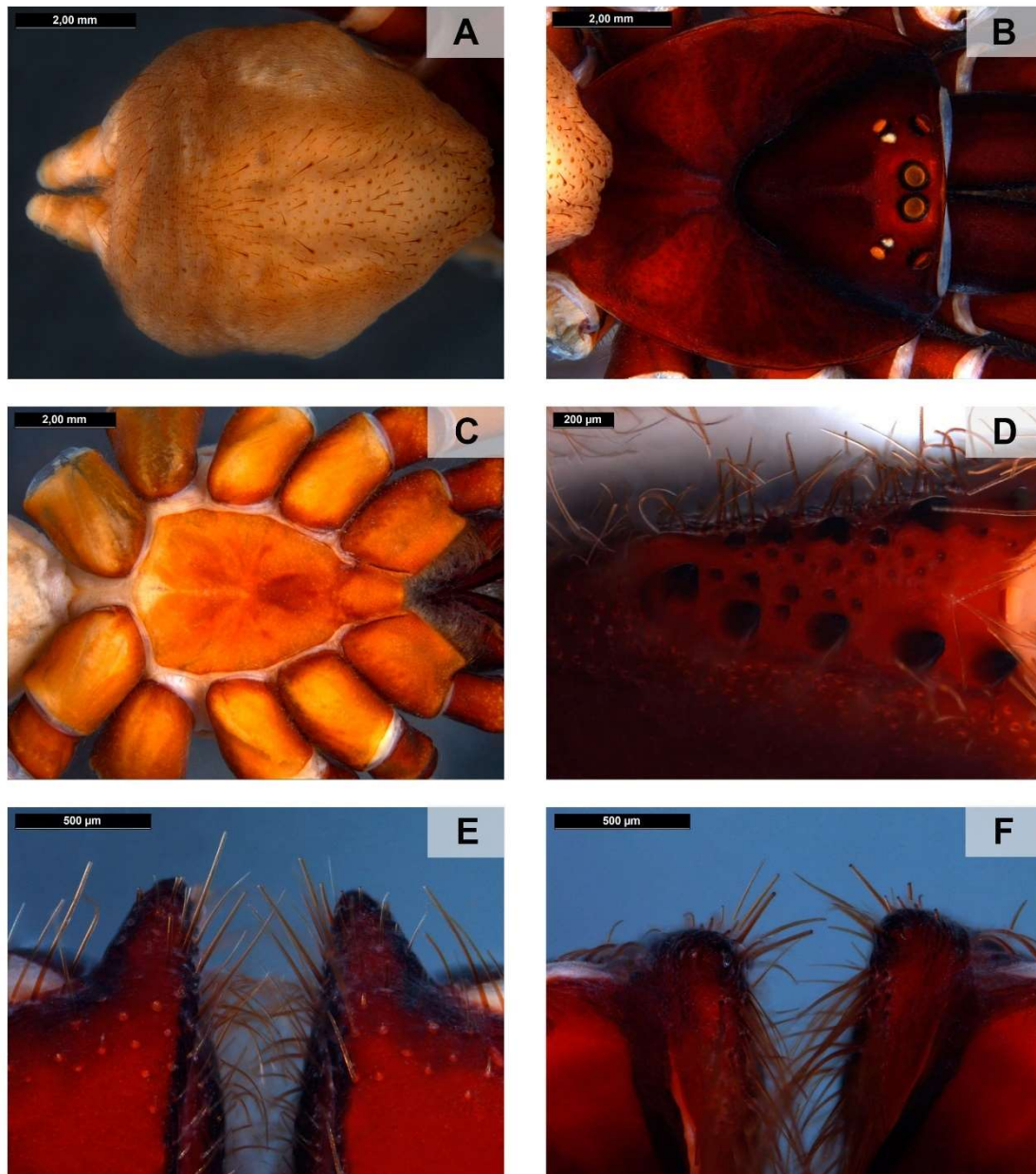


FIGURE 113 – *Actinopus paranensis* Mello-Leitão, 1920, holotype, male: A-F MNRJ 00002: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

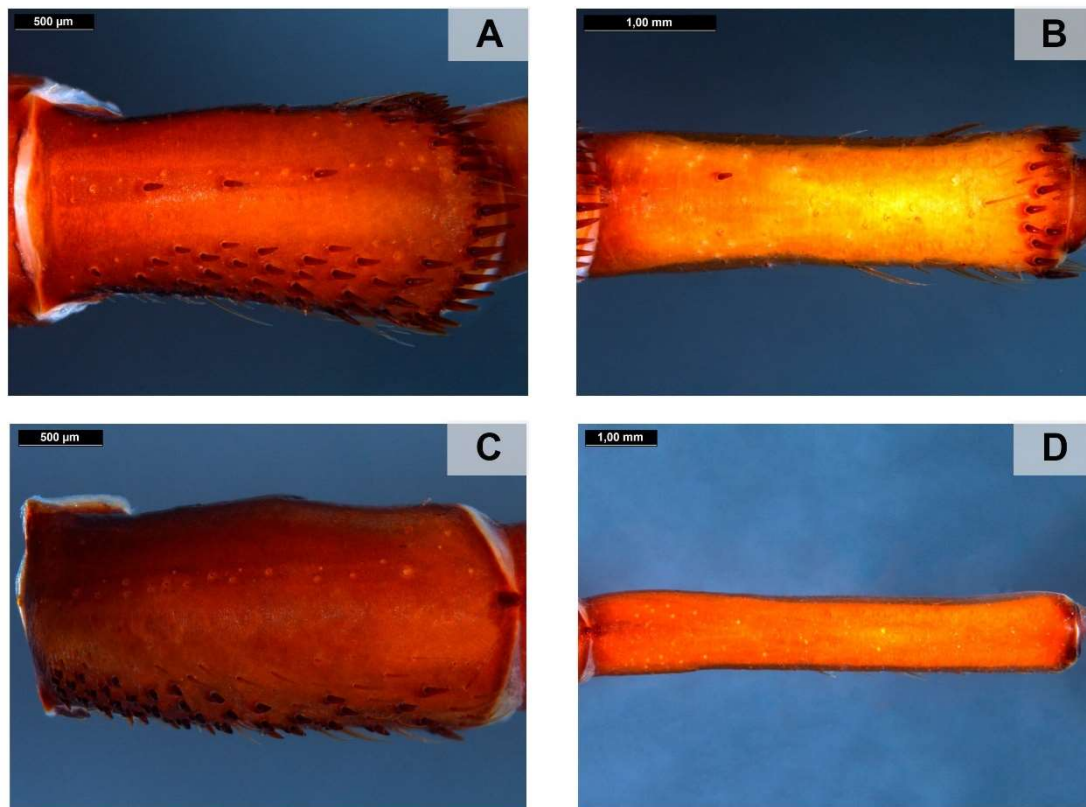


FIGURE 114 – *Actinopus paranensis* Mello-Leitão, 1920, holotype, male: A-D MNRJ 00002: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

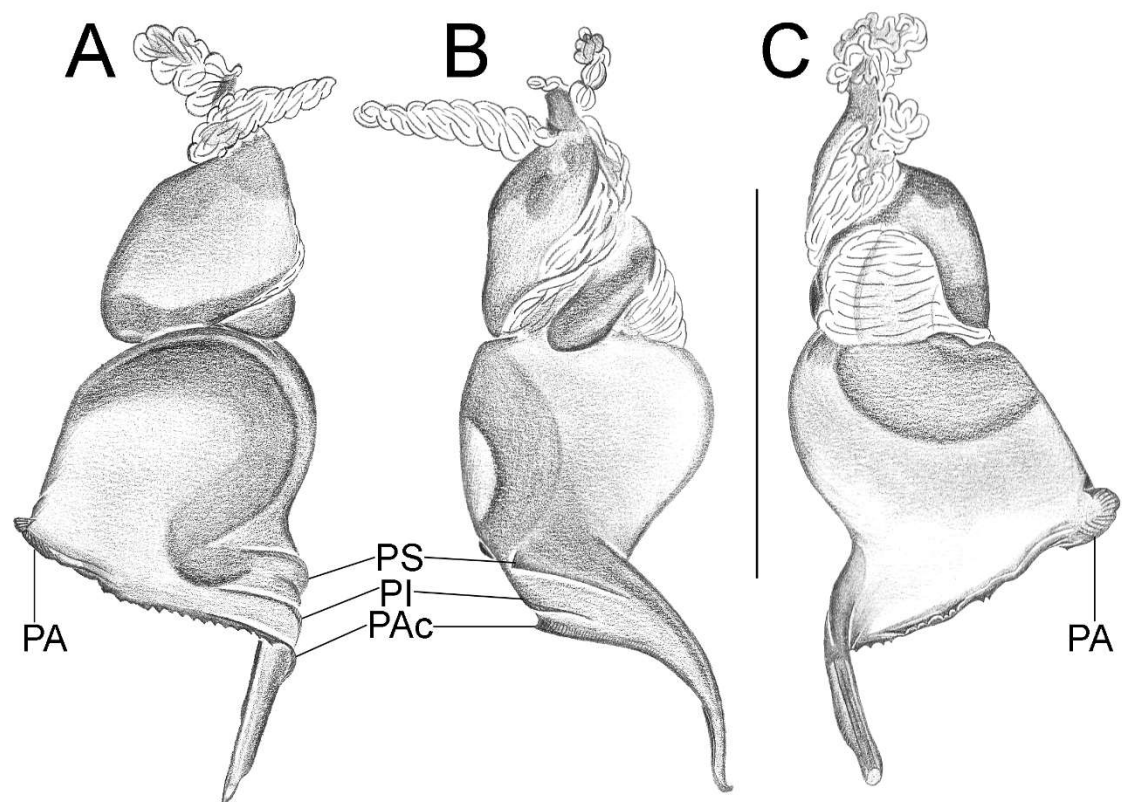


FIGURE 115 – *Actinopus paranensis* Mello-Leitão, 1920, holotype, male: A–C MNRJ 00002: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; **PAC** – Prolateral Accessory keel. Scale line: 1 mm.

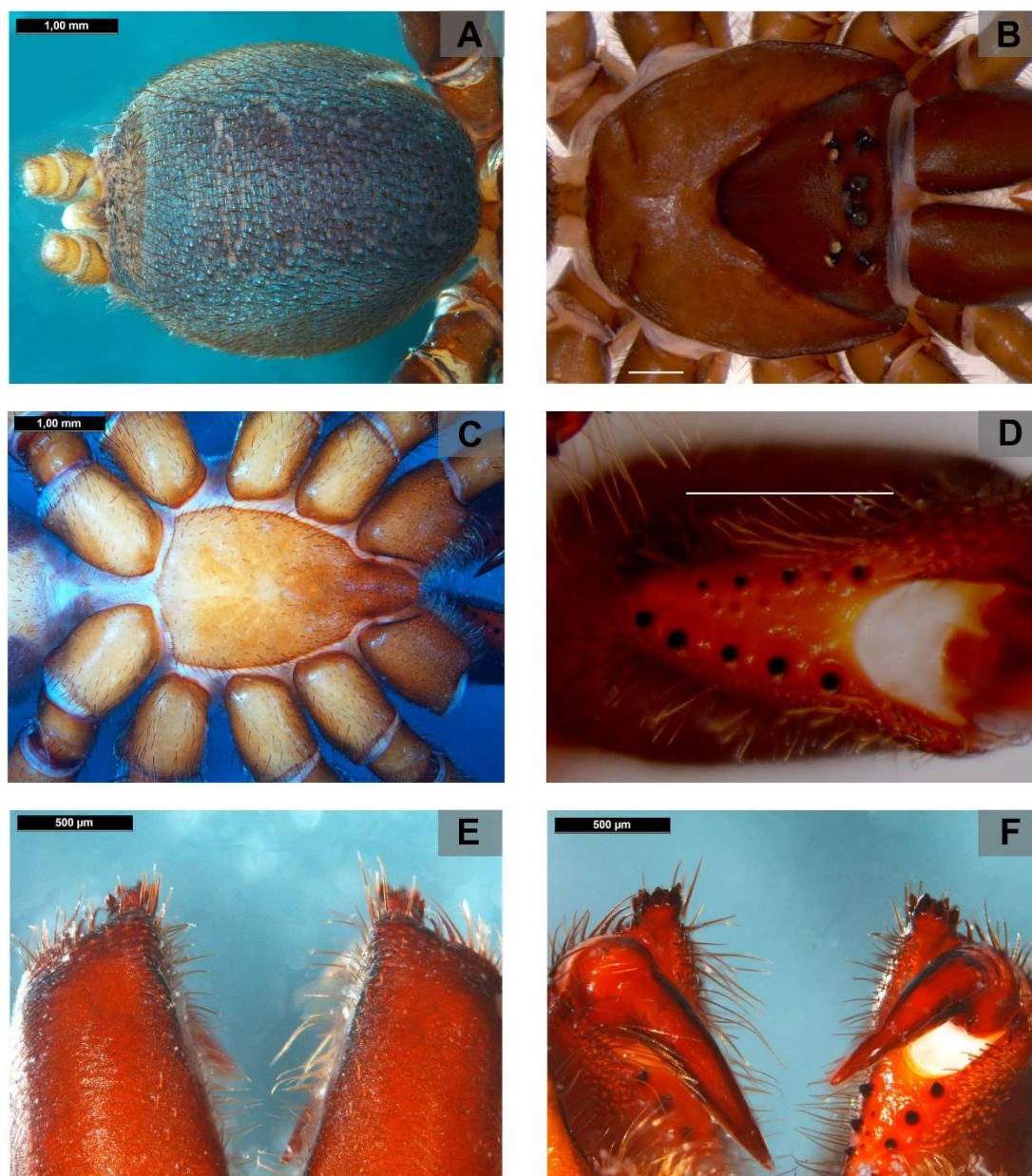


FIGURE 116 – *Actinopus pusillus* Mello-Leitão, 1920, male: A–F IBSP 13194: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines: A: 0.5 mm; D: 1 mm.

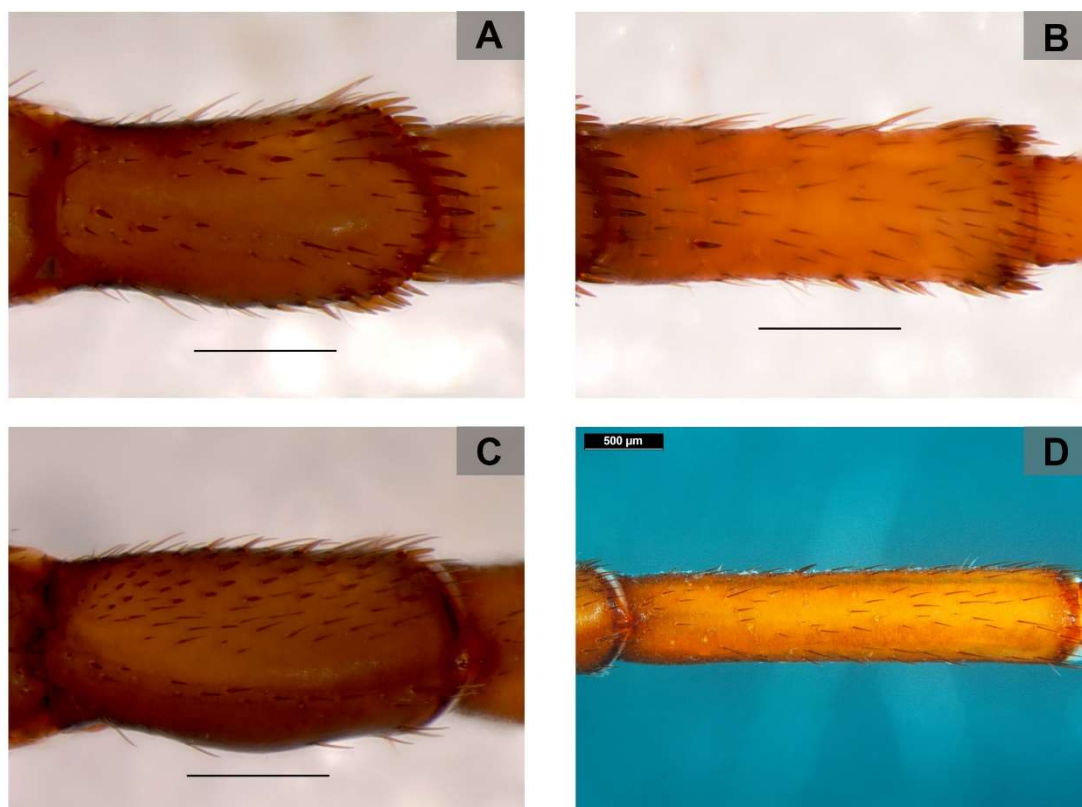


FIGURE 117 – *Actinopus pusillus* Mello-Leitão, 1920, male: A–D IBSP 13194: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A–C: 0.5 mm.

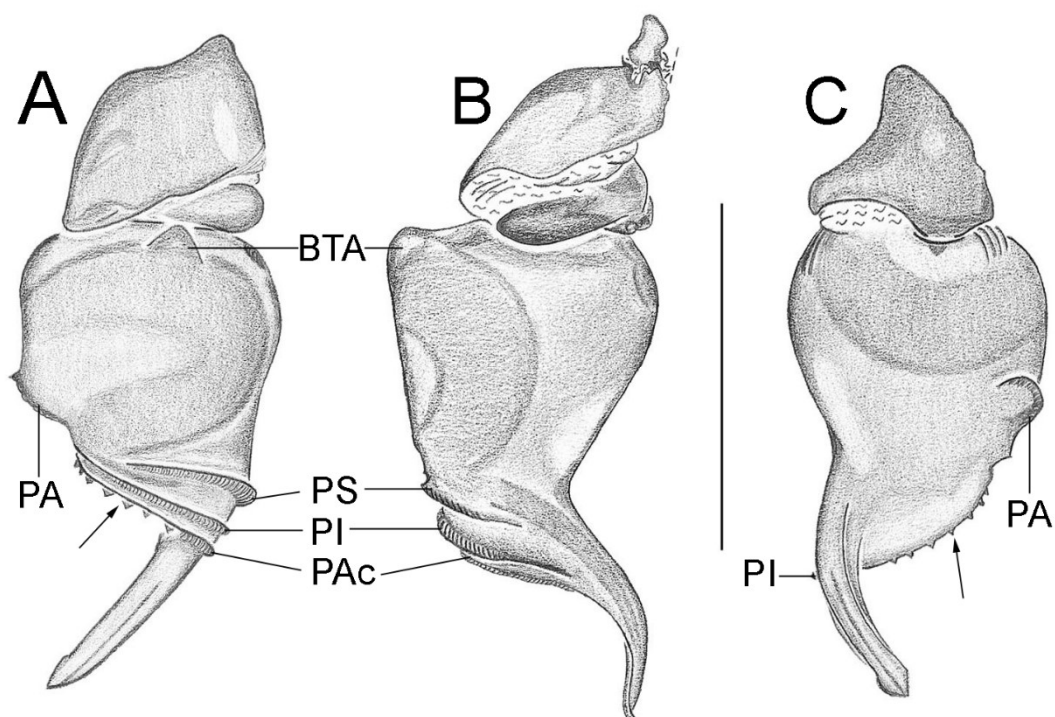


FIGURE 118 – *Actinopus pusillus* Mello-Leitão, 1920, male: A–C IBSP 14552: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

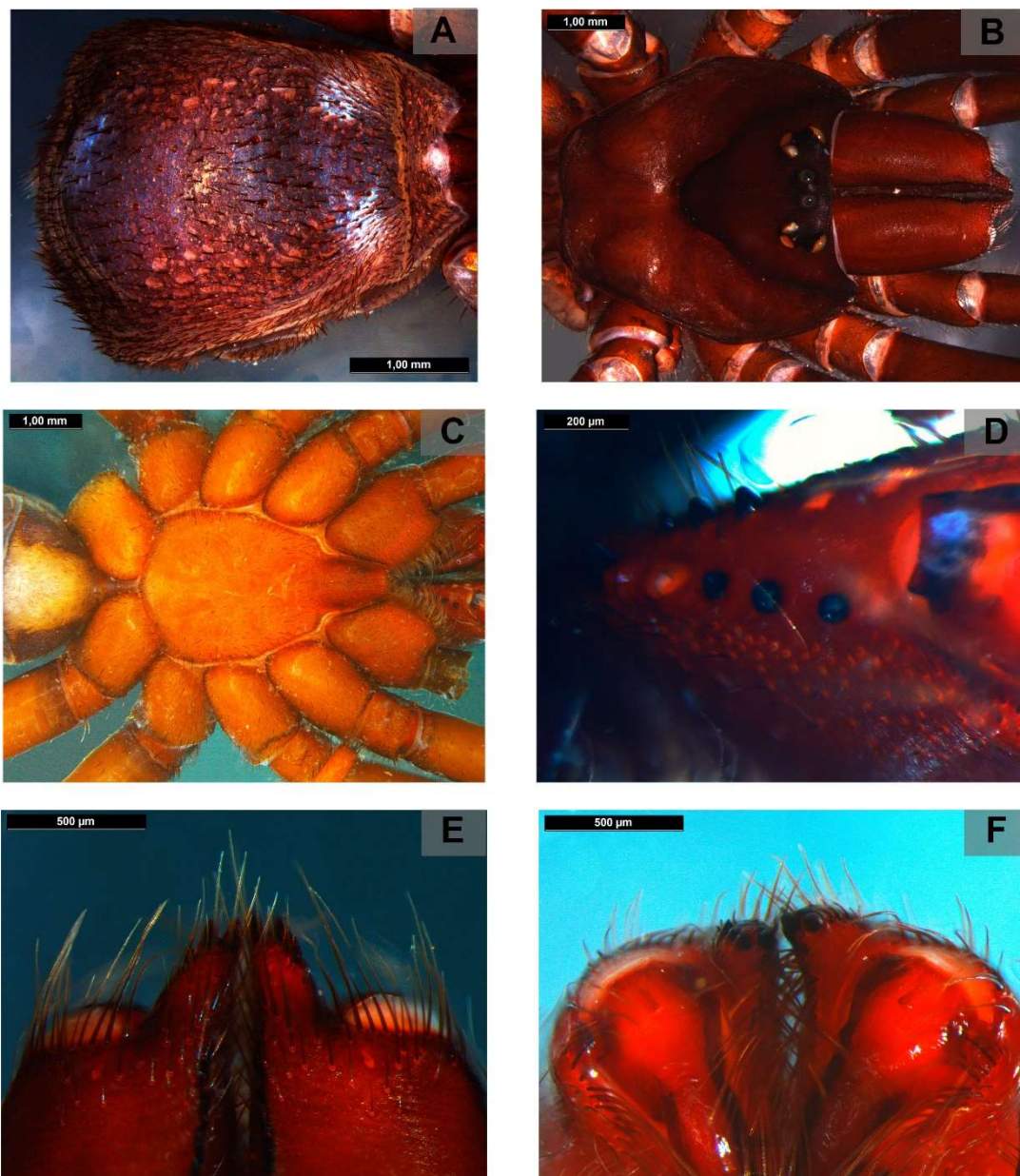


FIGURE 119 – *Actinopus emas* n. sp., male: A–F IBSP 108072: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

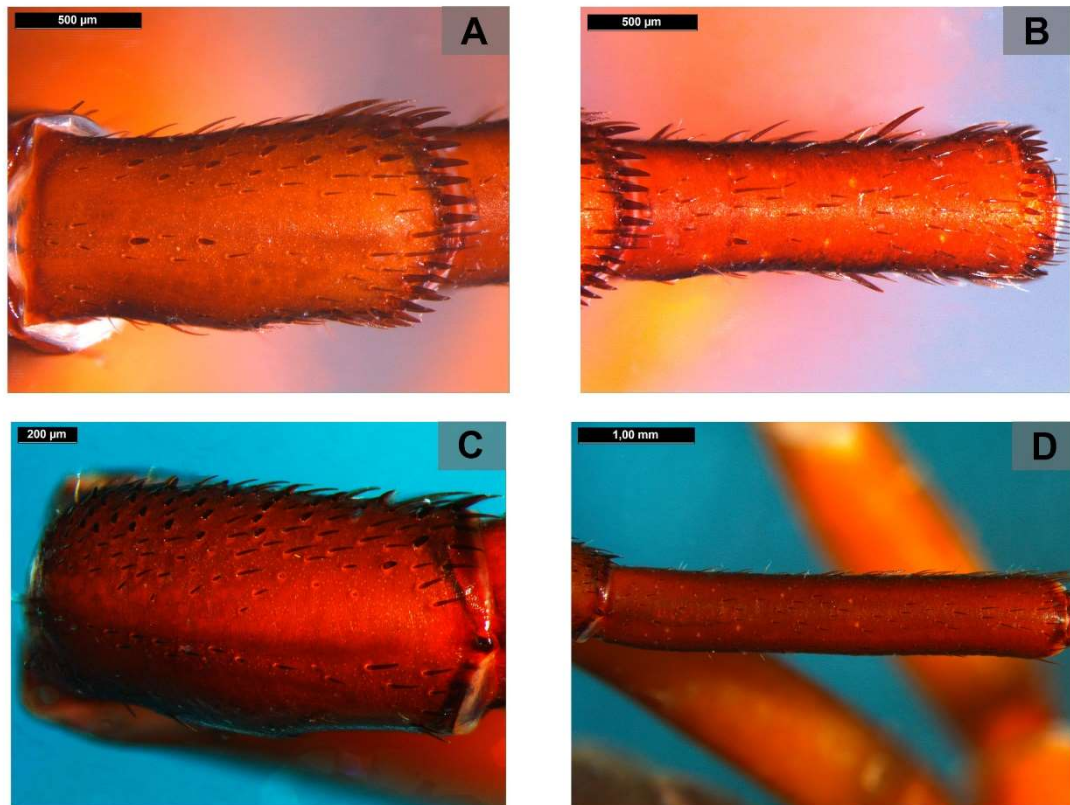


FIGURE 120 – *Actinopus emas* n. sp., male: A–D IBSP 108072: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

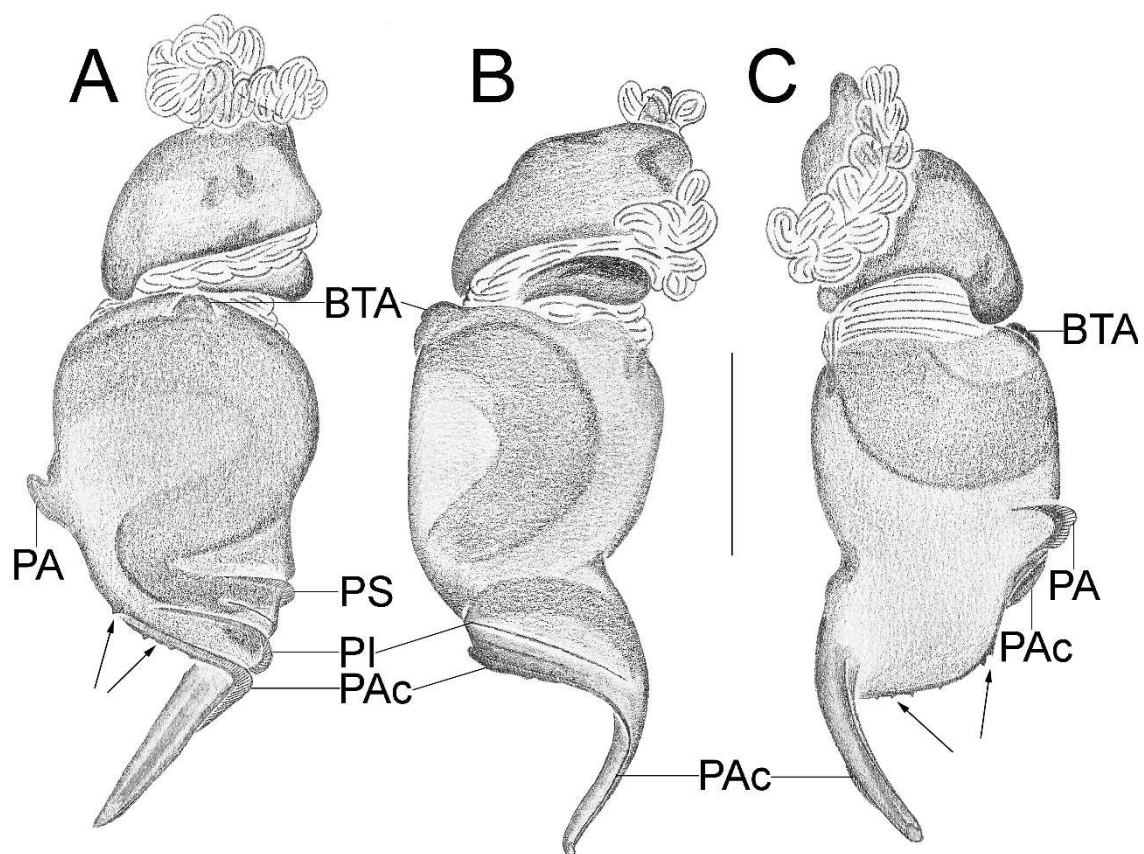


FIGURE 121 – *Actinopus emas* n. sp., male: A–C IBSP 188072: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 0.5 mm.

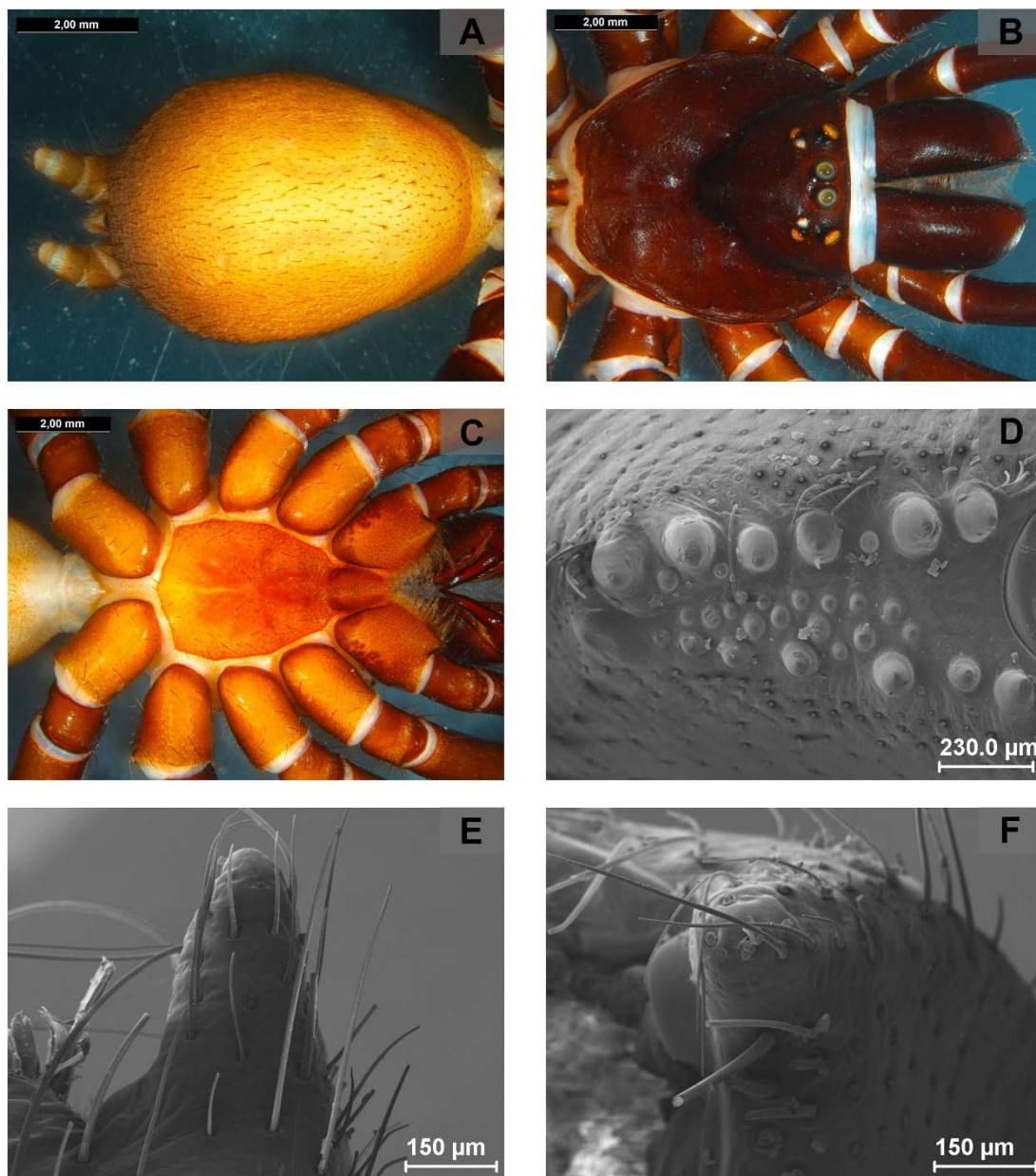


FIGURE 122 – *Actinopus bocaina* n. sp., male: A–F CAD 326 (Automontage photos) and UFMG 1606 (MEV Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

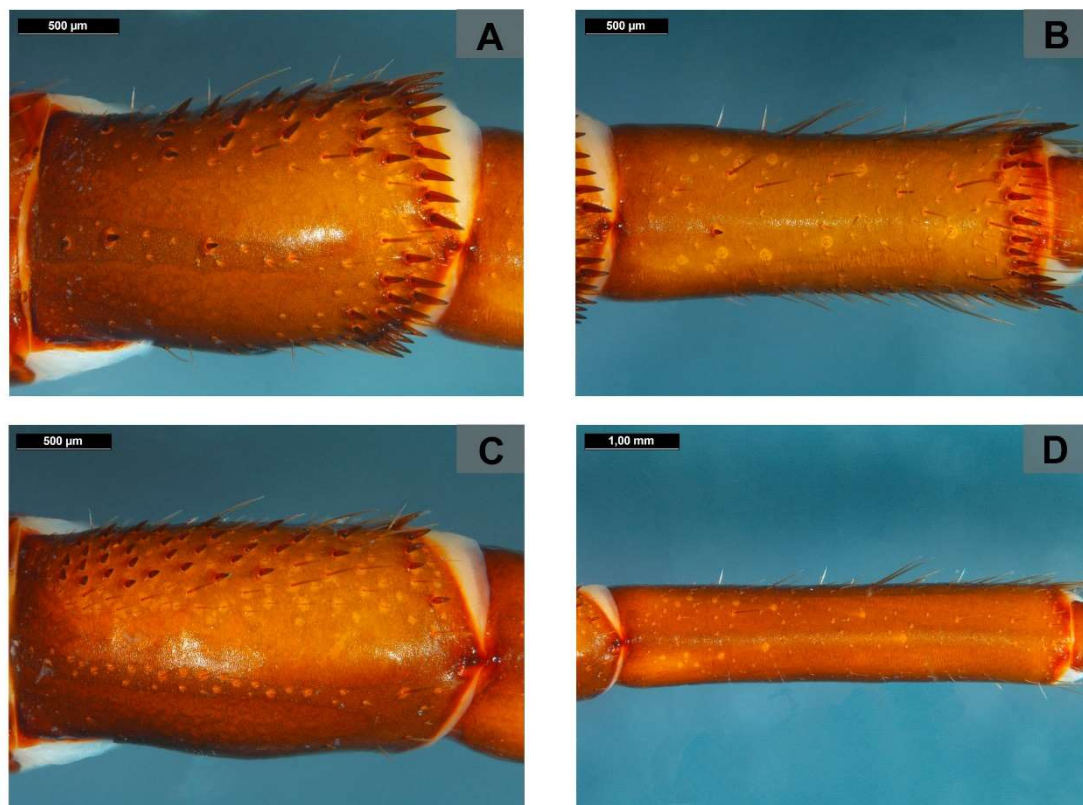


FIGURE 123 – *Actinopus bocaina* n. sp., male: A–D CAD 326: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

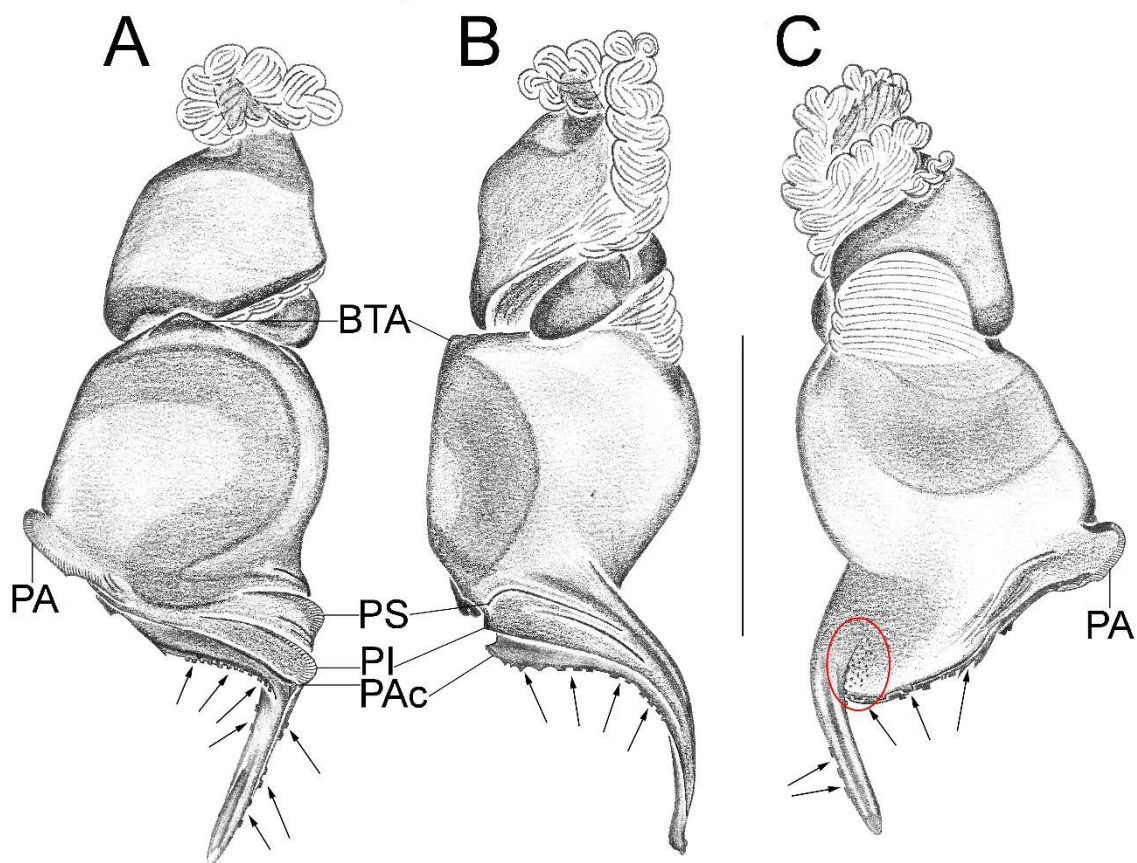


FIGURE 124 – *Actinopus bocaina* n. sp.: A–C CAD 326: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area; Red Circle: Reduced cusps. Scale line: 1 mm.

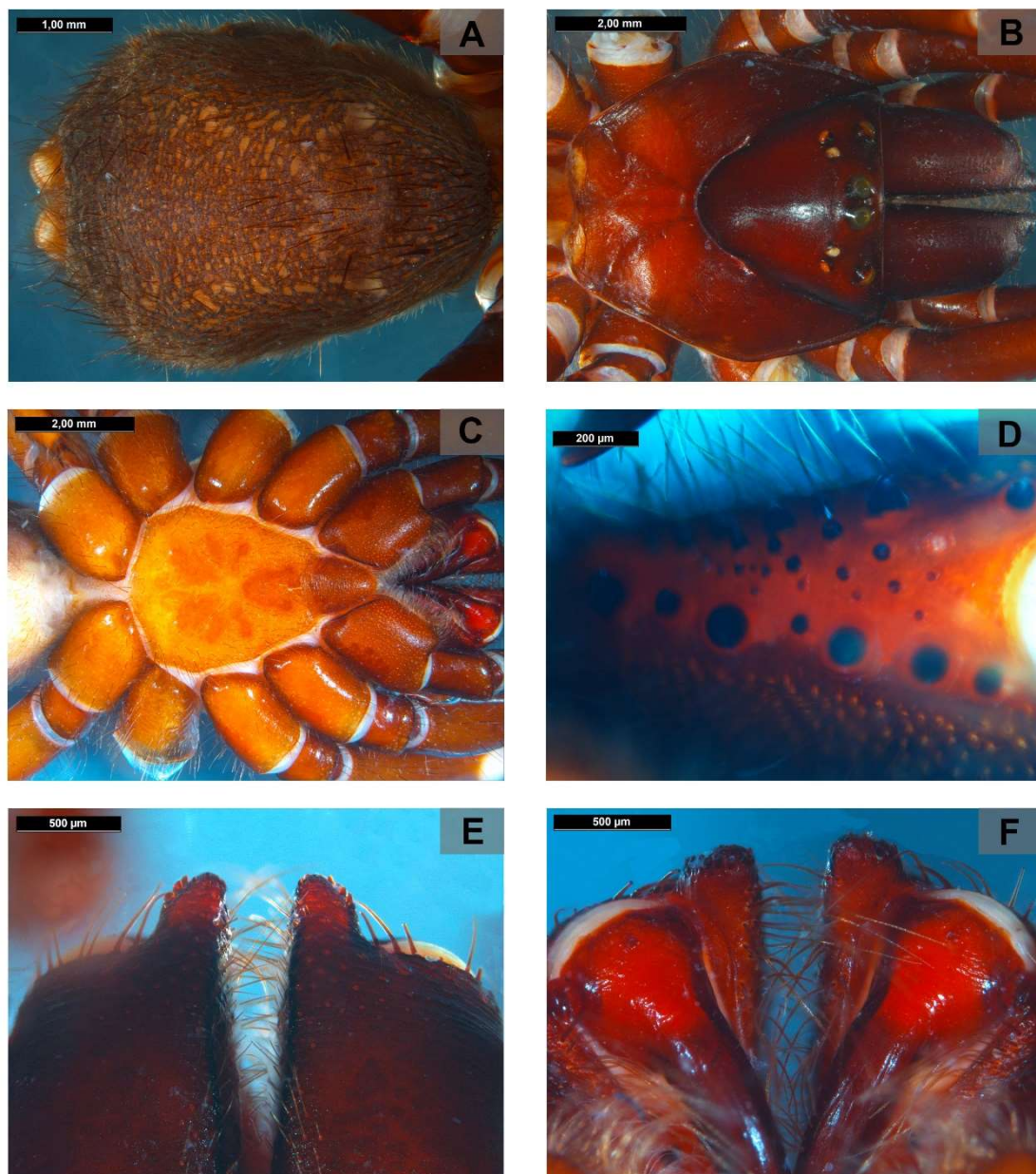


FIGURE 125 – *Actinopus laventana* n. sp., male: A–F LZI M135: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

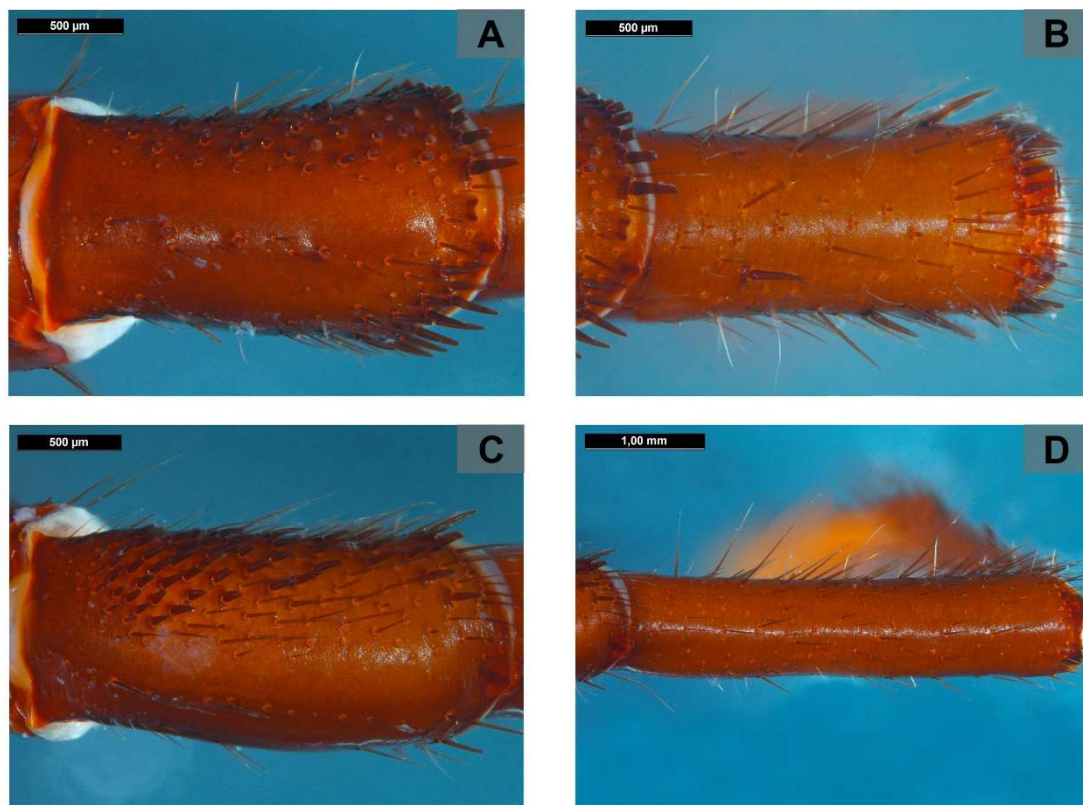


FIGURE 126 – *Actinopus laventana* n. sp., male: A–D LZI M135: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

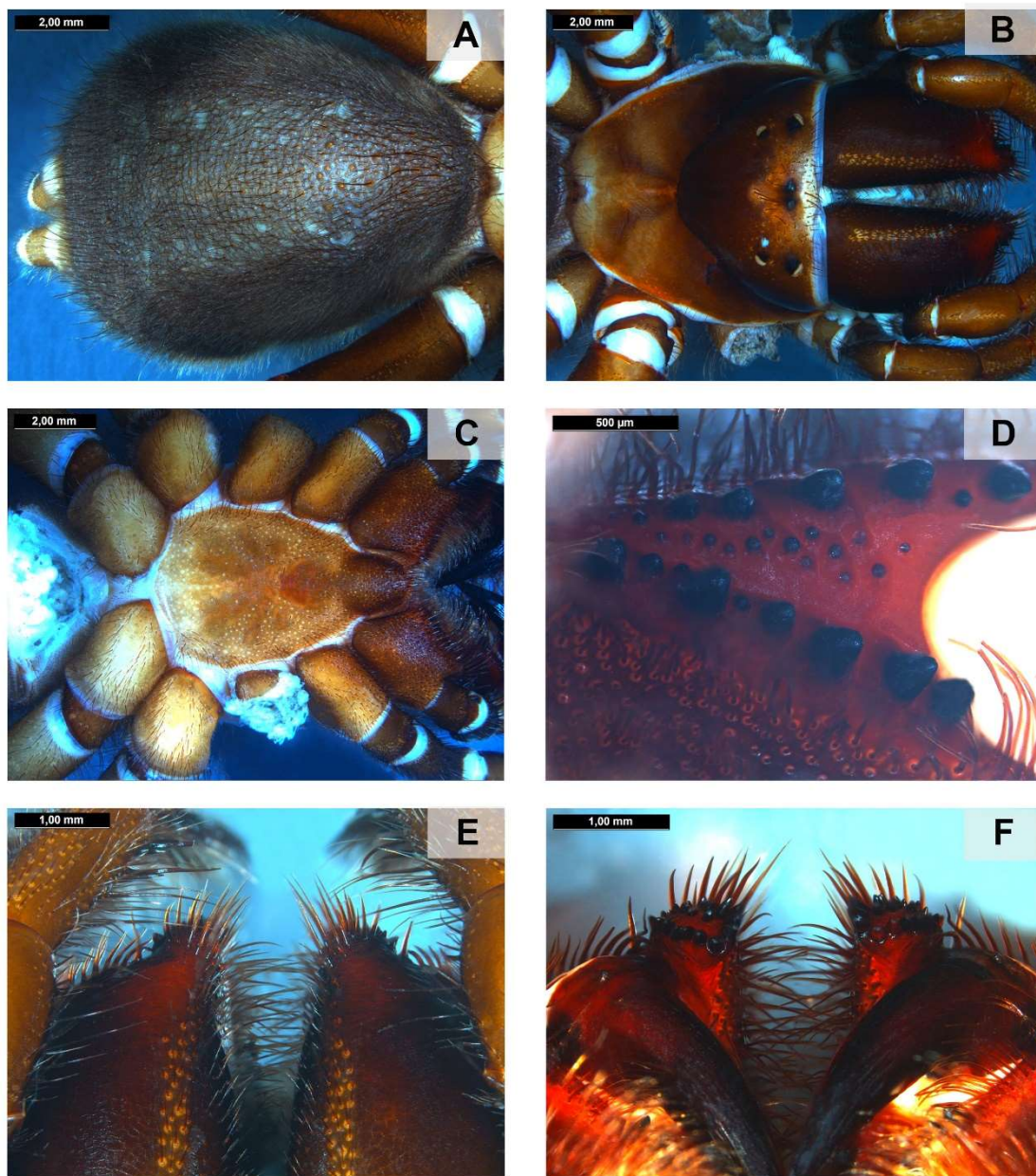


FIGURE 127 – *Actinopus laventana* n. sp., female: A–F FCE-MY 977: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

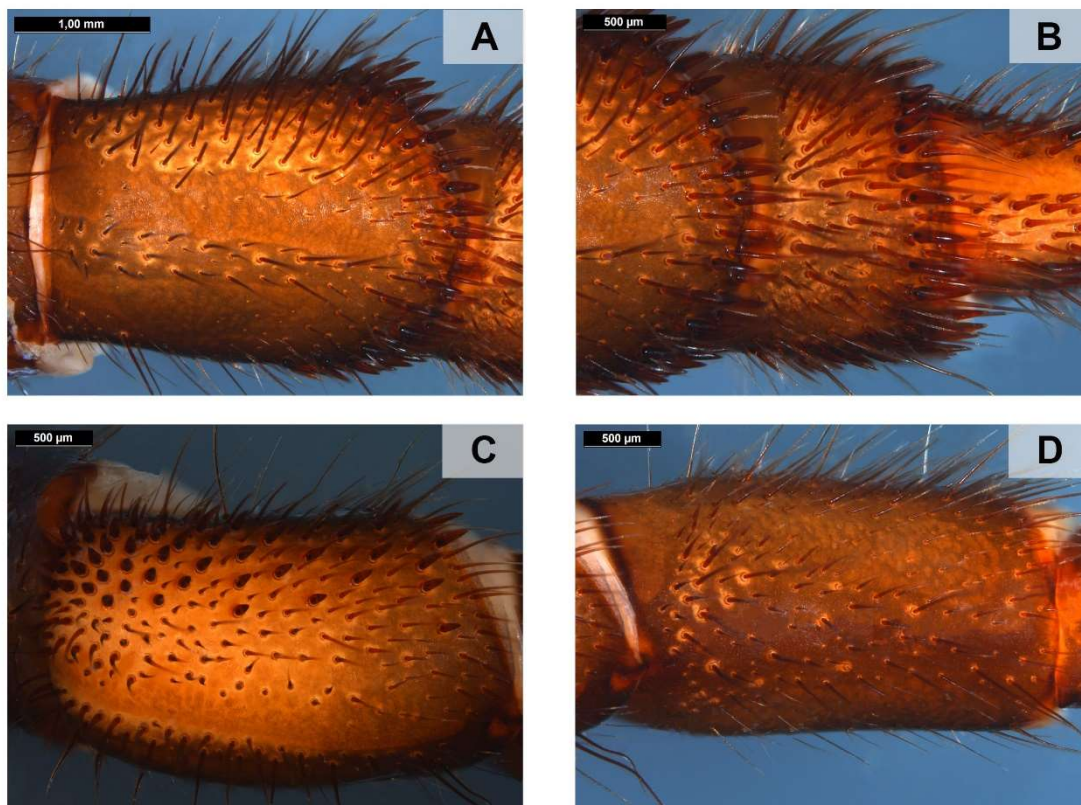


FIGURE 128 – *Actinopus laventana* n. sp., female: A–D FCE-MY 977: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

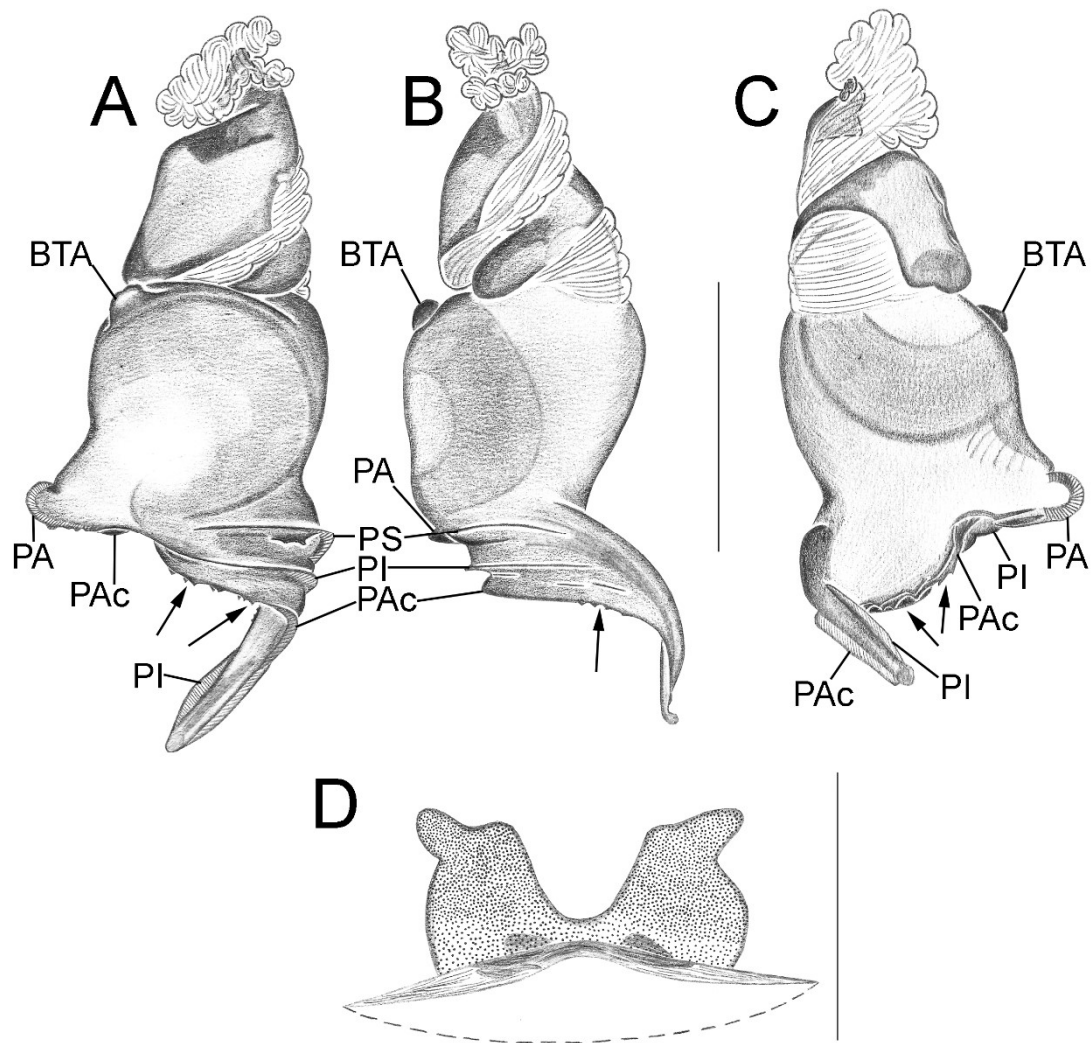


FIGURE 129 – *Actinopus laventana* n. sp., male: A–C LZI M135: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PAC** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D FCE-MY 977: D. Spermathecae, dorsal view. Scale line: 1 mm.

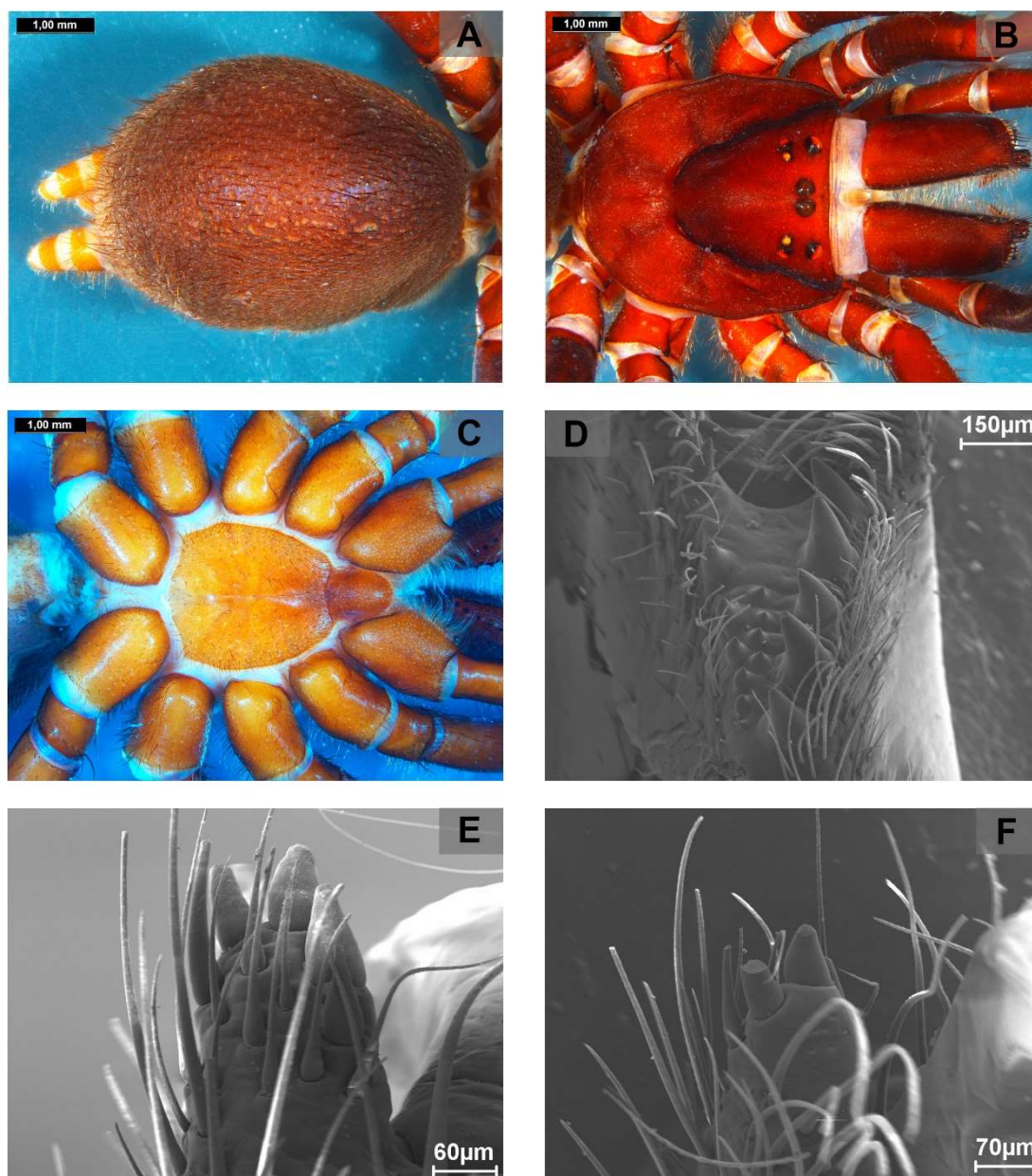


FIGURE 130 – *Actinopus piui* n. sp., male: A–F MACN-Ar 19837 (Automontage photos) and MACN-Ar 19829 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

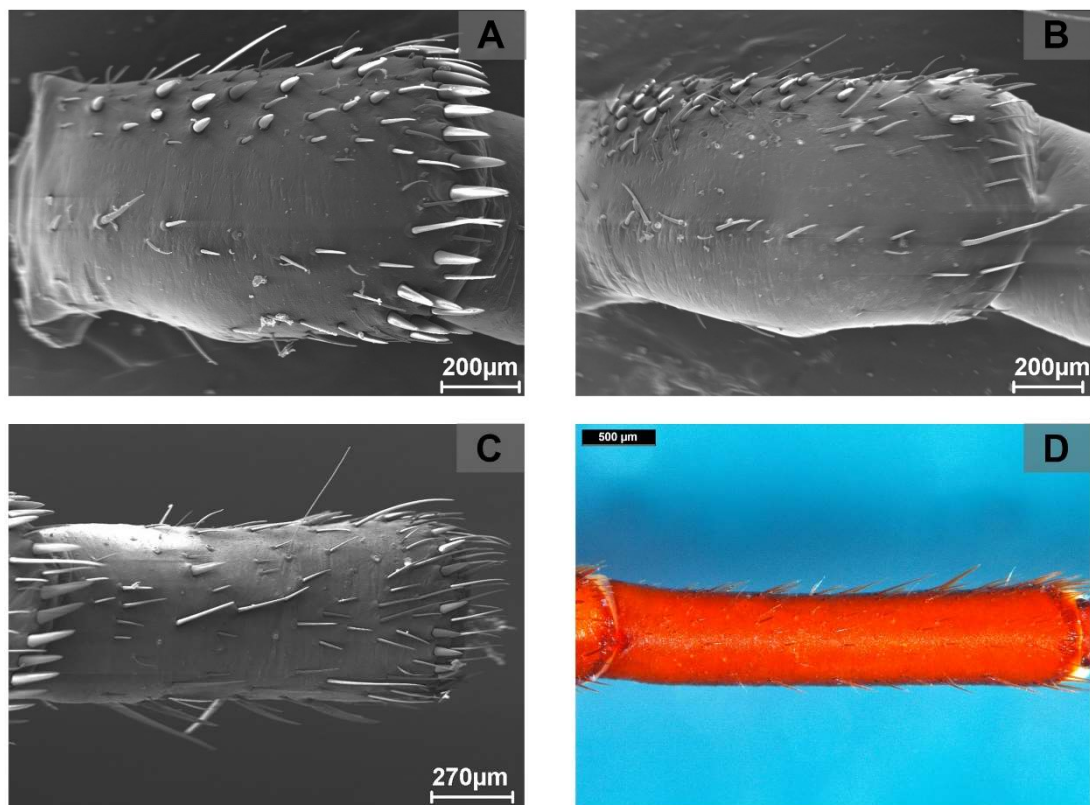


FIGURE 131 – *Actinopus piui* n. sp., male: A–D MACN-Ar 19837 (Automontage photos) and MACN-Ar 19829 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

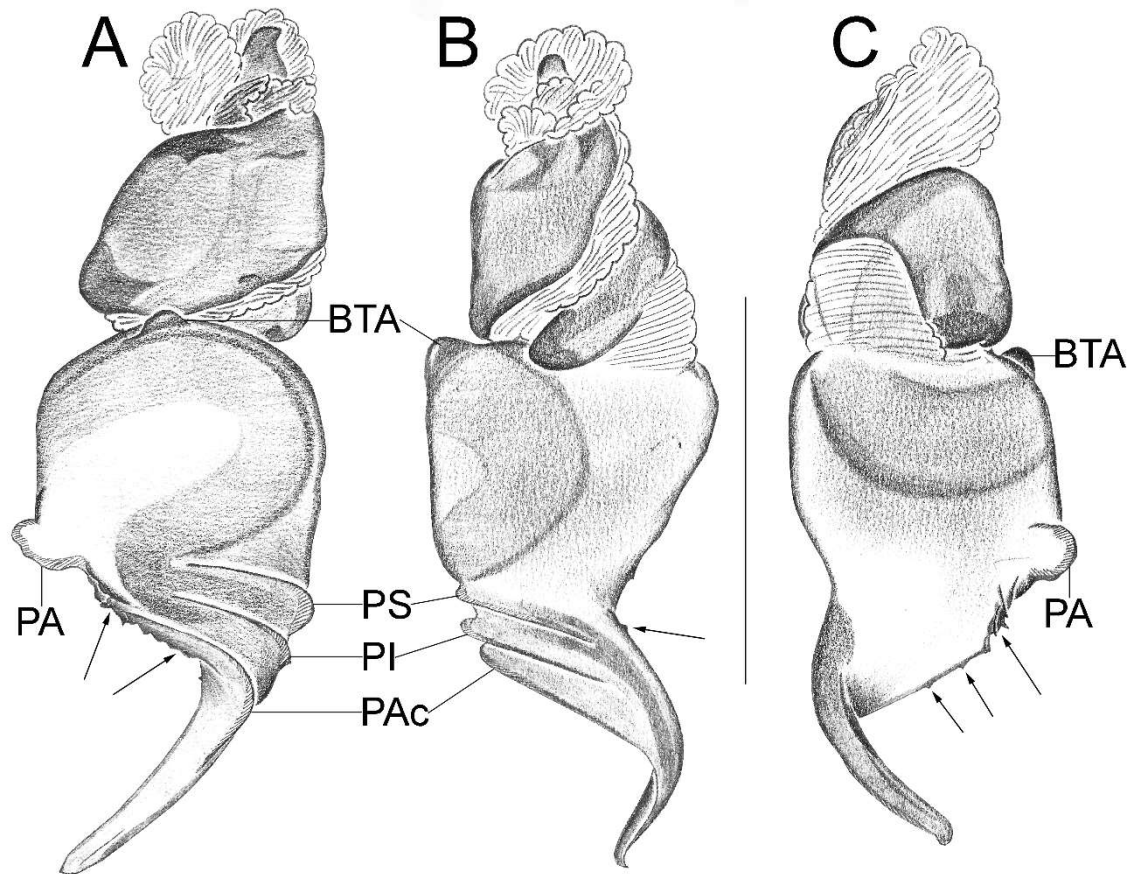


FIGURE 132 – *Actinopus piui* n. sp., male: A–C MACN-Ar 19837: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

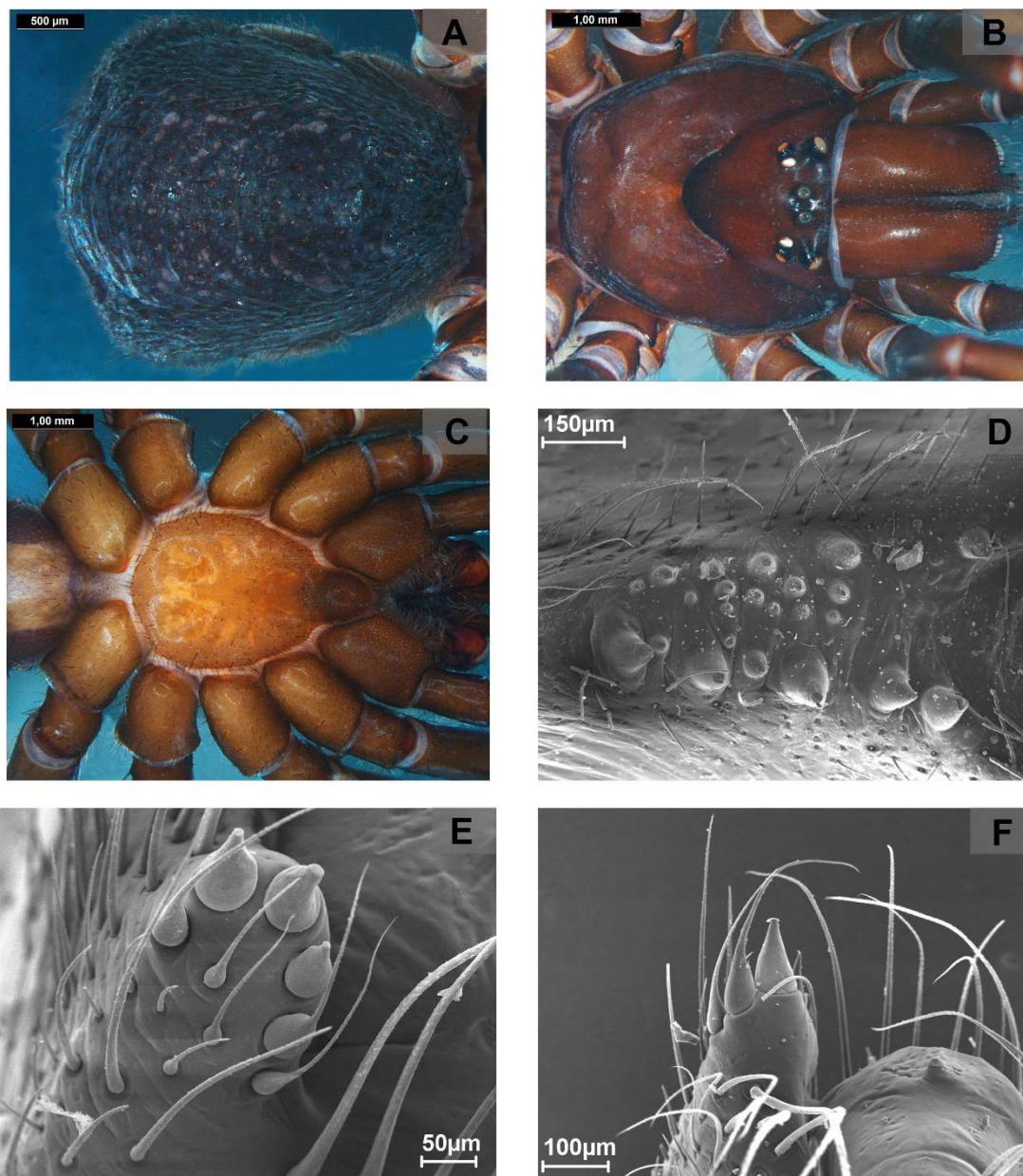


FIGURE 133 – *Actinopus osbournei* n. sp., male: A–F MCTP 8859 (Automontage photos) and MCTP 8850 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

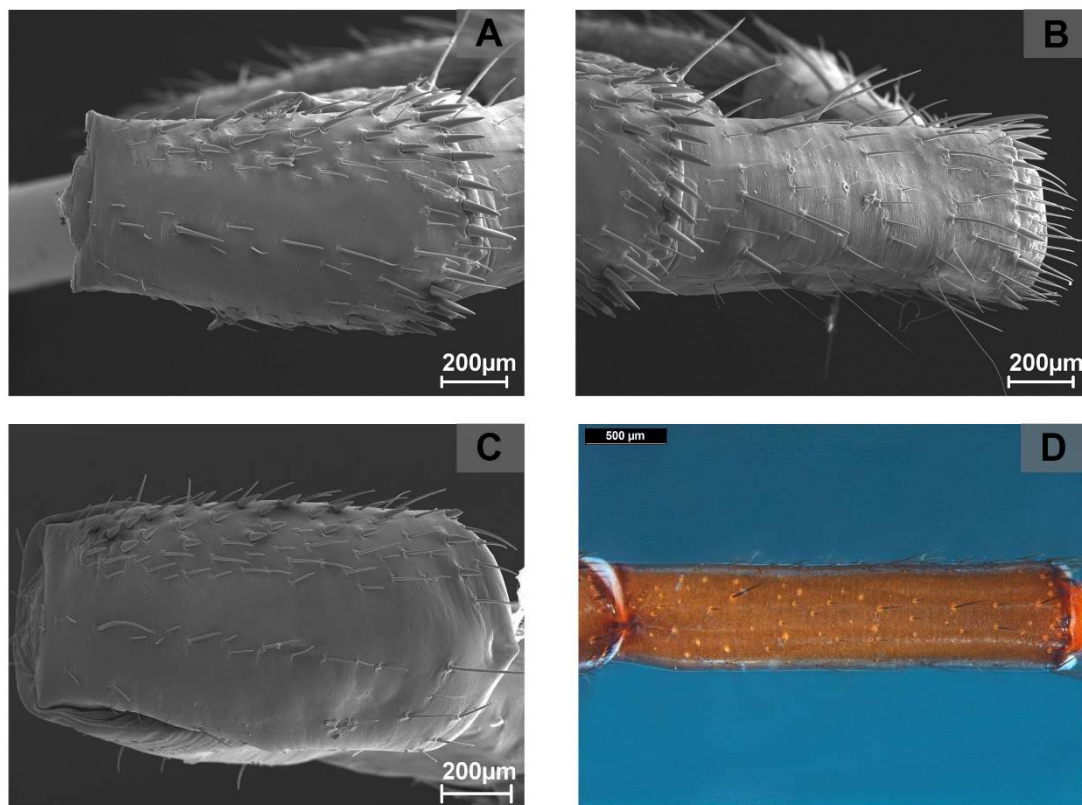


FIGURE 134 – *Actinopus osbournei* n. sp., male: A–D MCTP 8859 (Automontage photos) and MCTP 8850 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

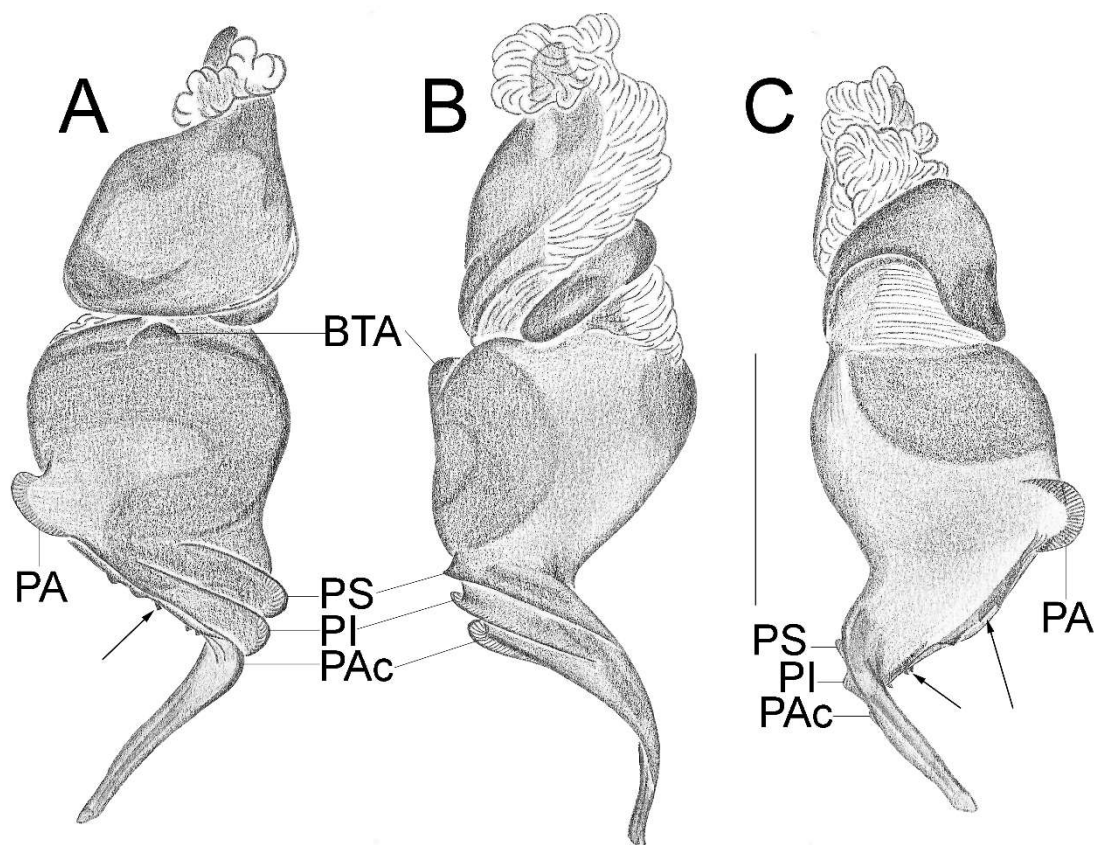


FIGURE 135 – *Actinopus osbournei* n. sp., male: A–C MCTP 8859: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PAc** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

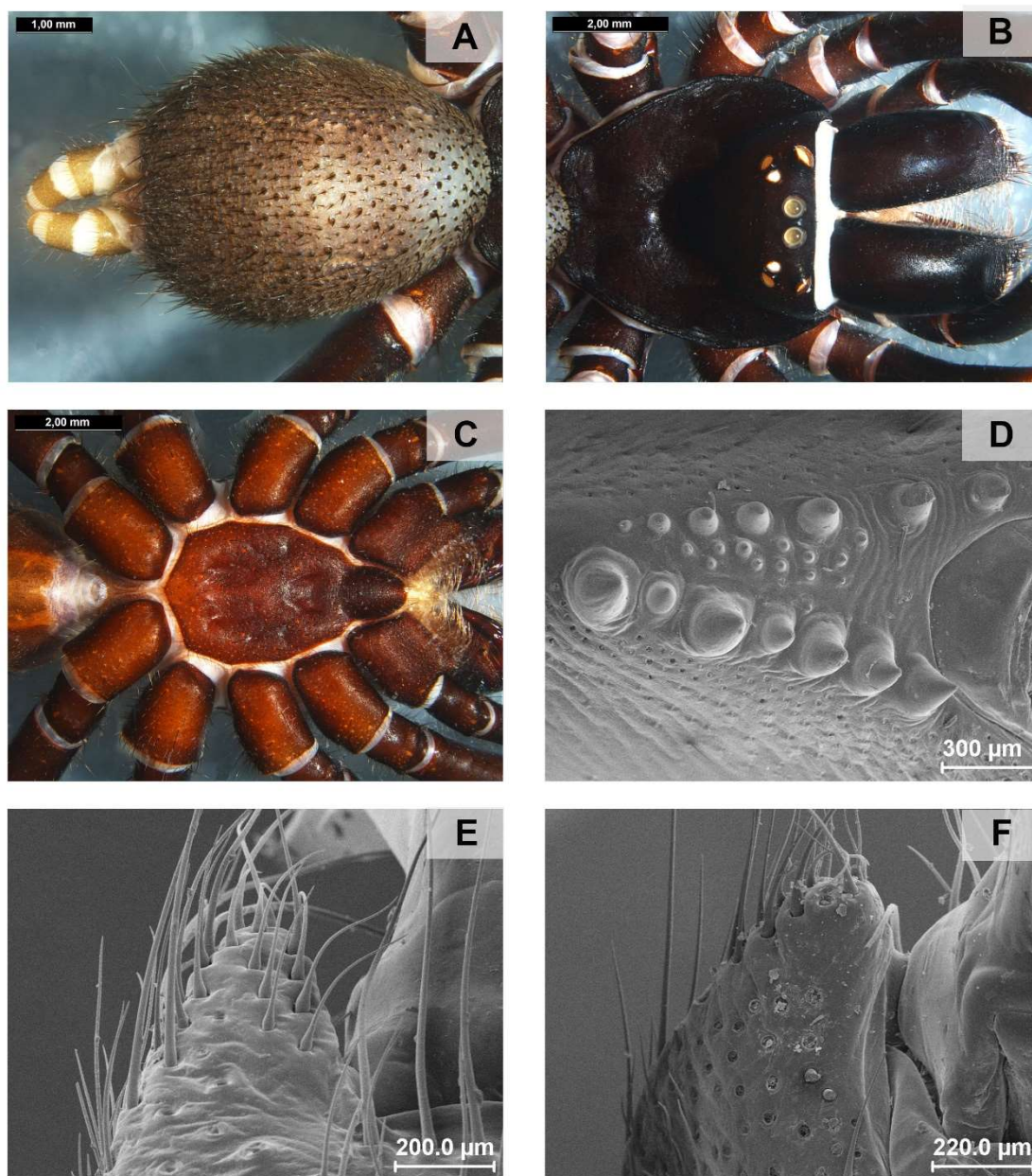


FIGURE 136 – *Actinopus dioi* n. sp., male: A–F MPEG (Automontage photos) and MPEG (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

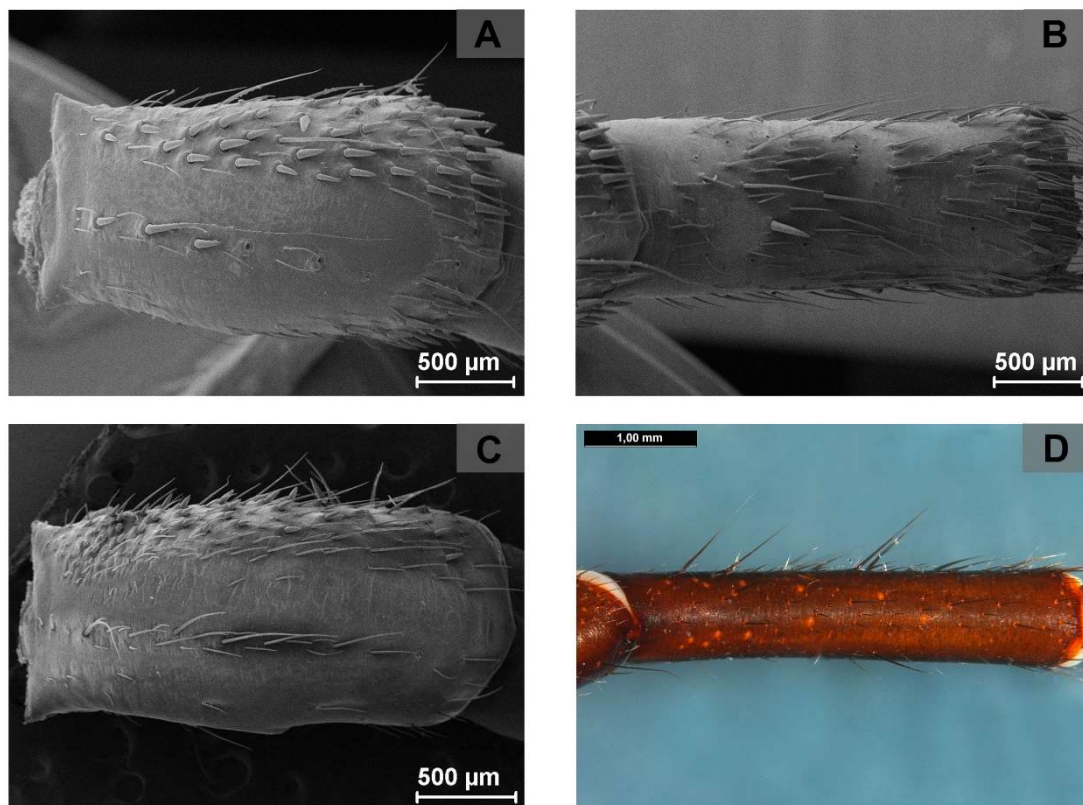


FIGURE 137 – *Actinopus dioi* n. sp., male: A–D MPEG (Automontage photos) and MPEG (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

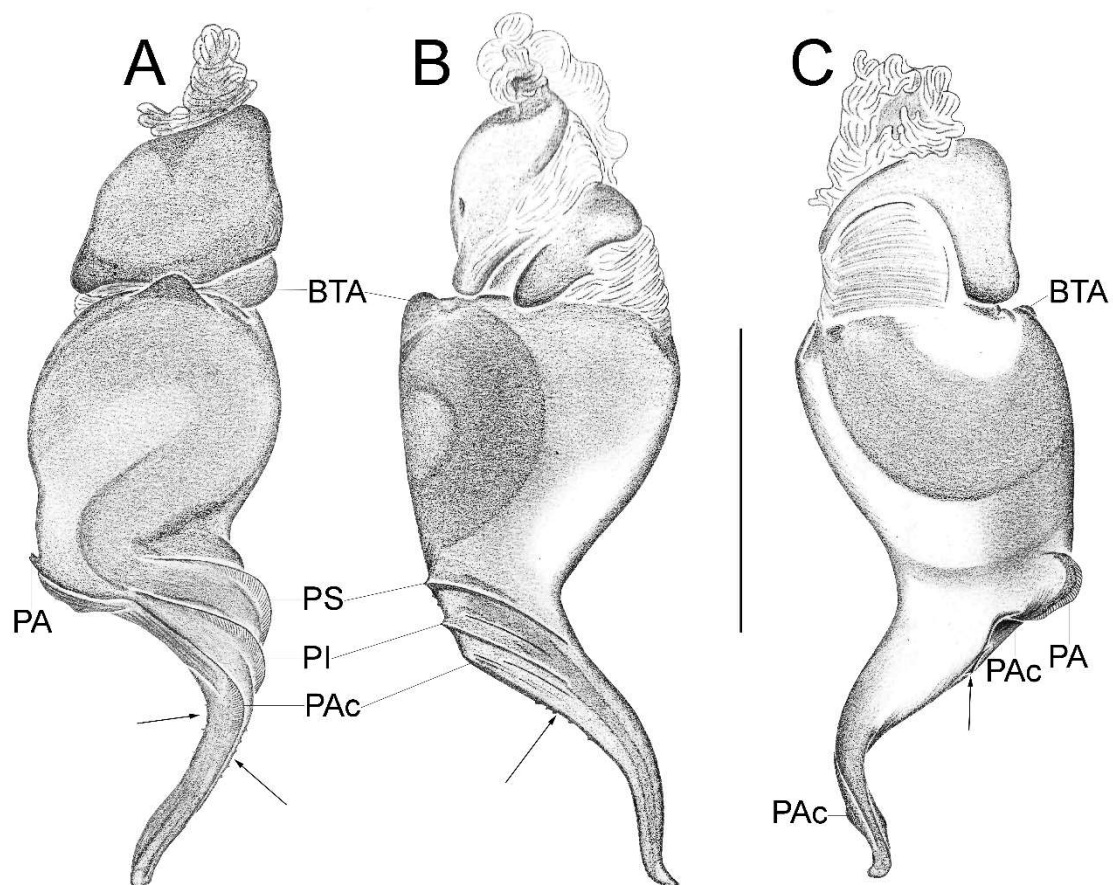


FIGURE 138 – *Actinopus dioi* n. sp., male: A–C MPEG: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

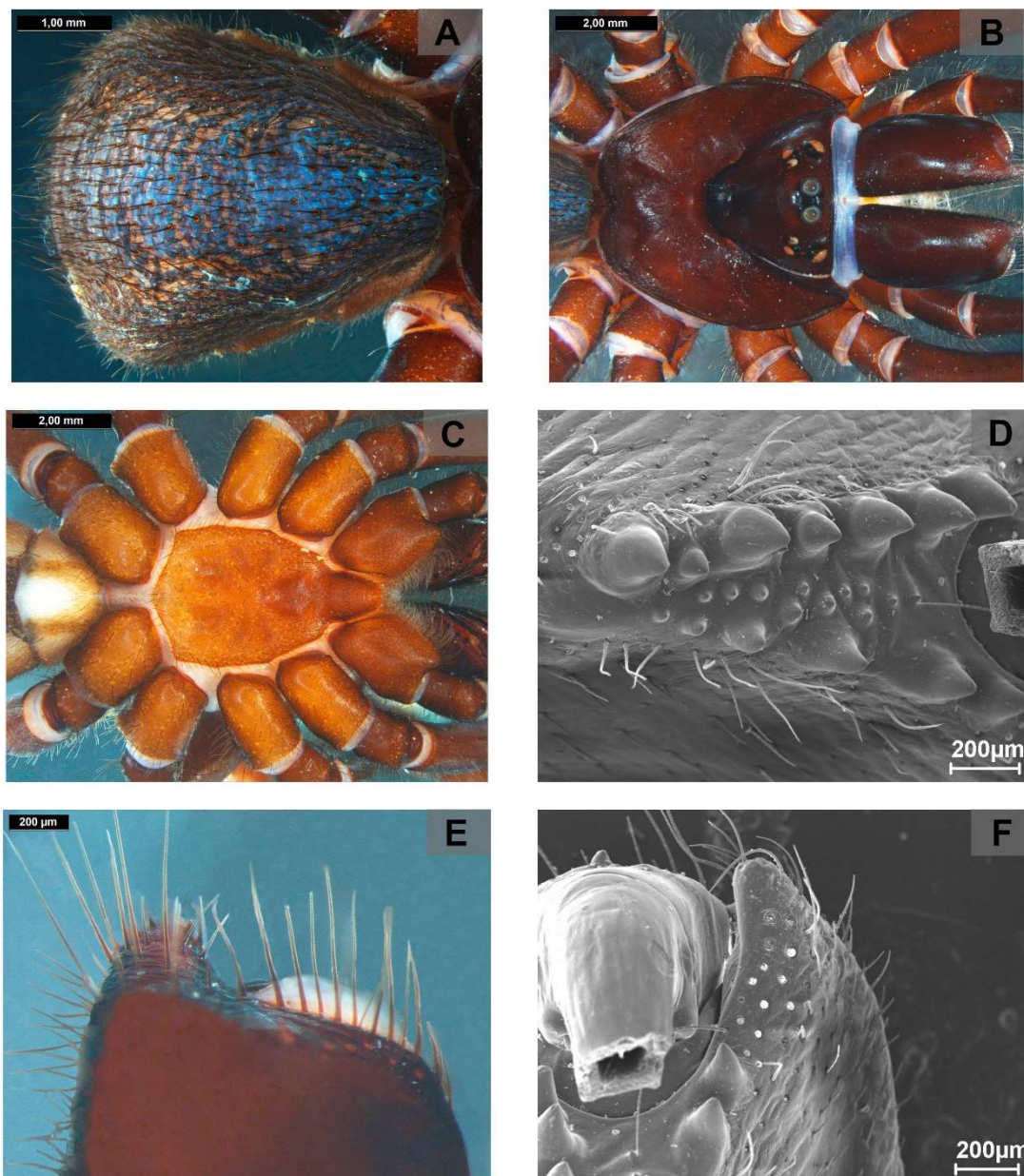


FIGURE 139 – *Actinopus tutu* n. sp., male: A–F UFMG 585 (Automontage photos) and IBSP 110494 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

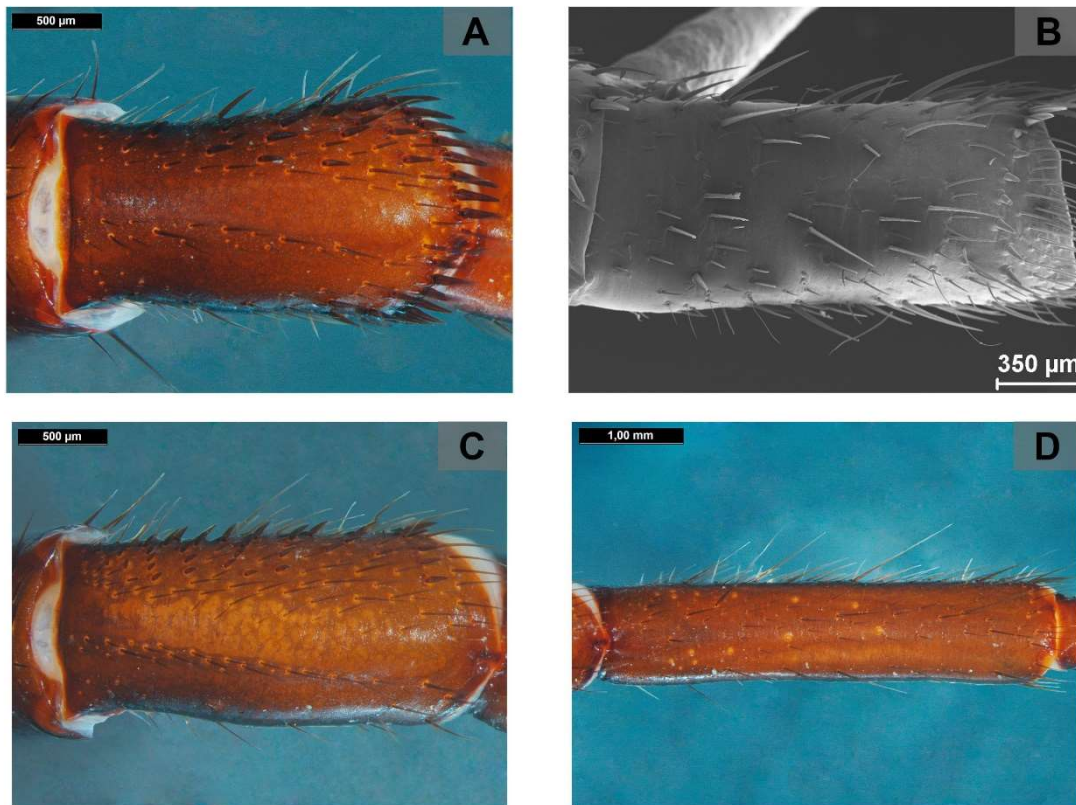


FIGURE 140 – *Actinopus tutu* n. sp., male: A–D UFMG 585 (Automontage photos) and IBSP 110494 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

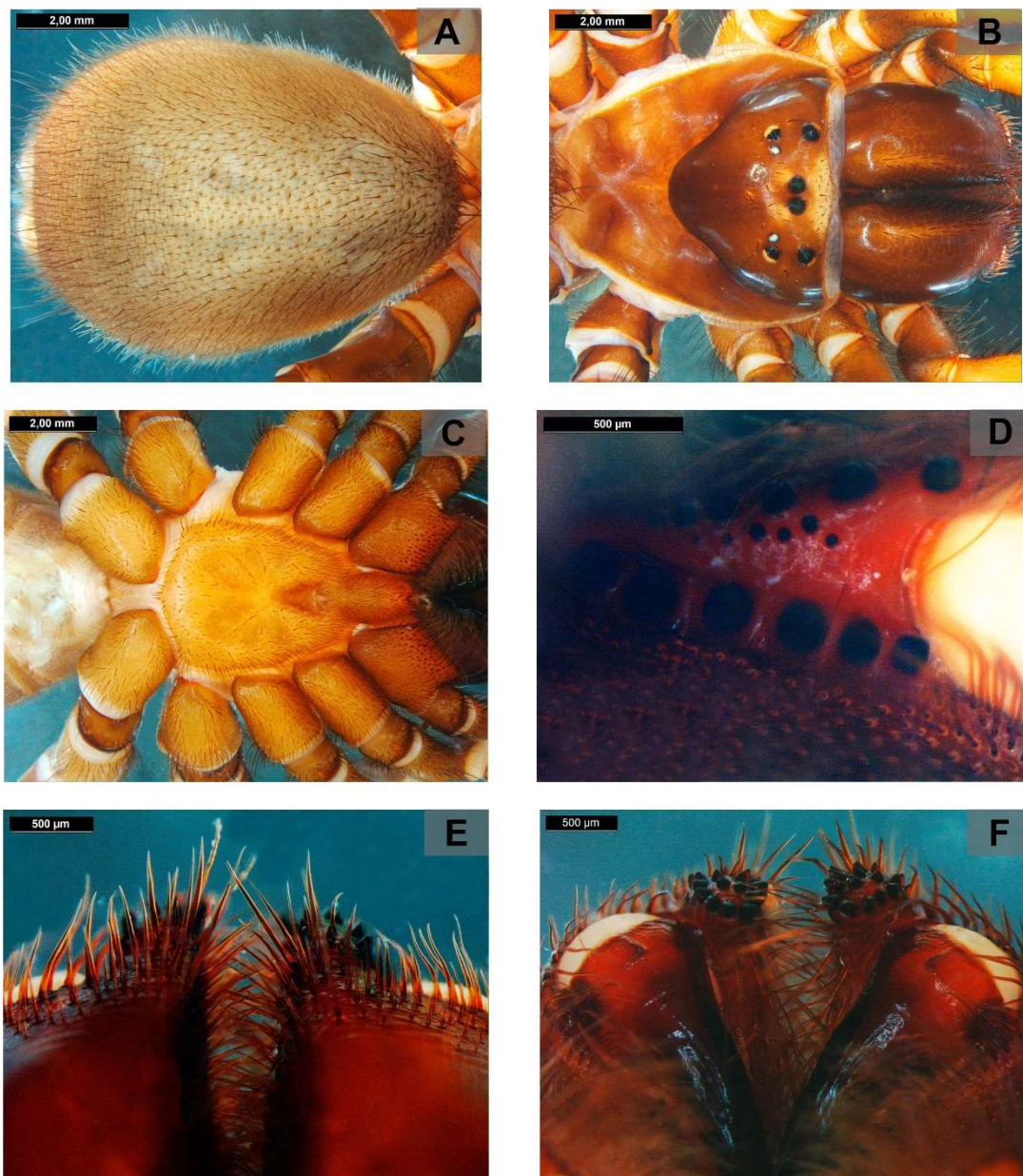


FIGURE 141 – *Actinopus tutu* n. sp., female: A–F UFMG 5647: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

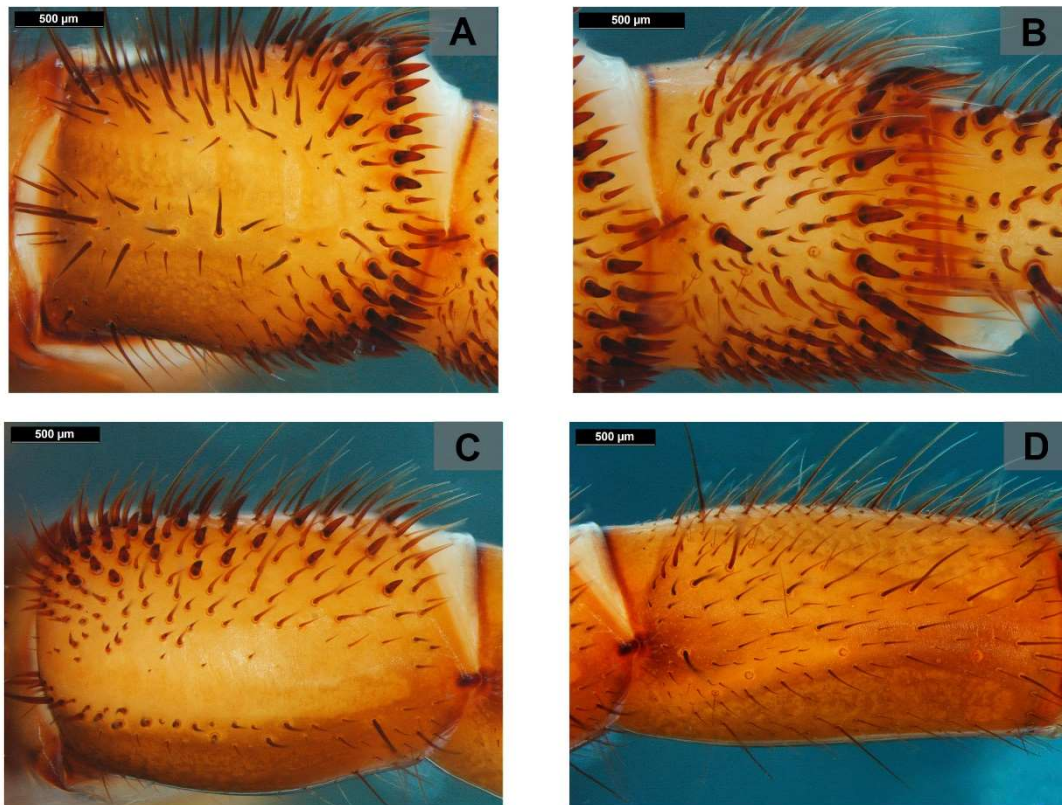


FIGURE 142 – *Actinopus tutu* n. sp., female: A–D UFMG 5647: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

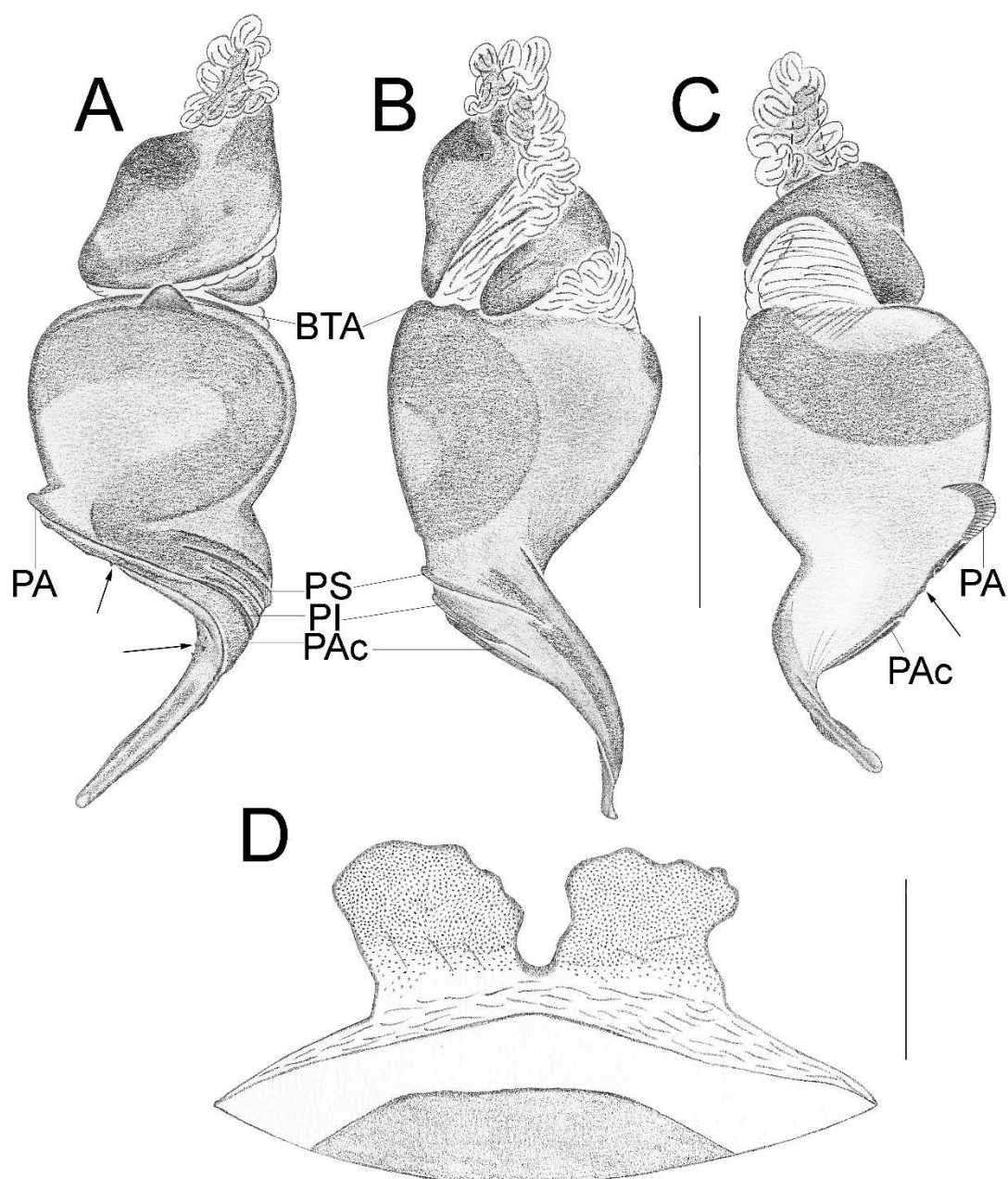


FIGURE 143 – *Actinopus tutu* n. sp., male: A–C UFMG 585: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D UFMG 5647: D. Spermathecae, dorsal view. Scale line: 1 mm.

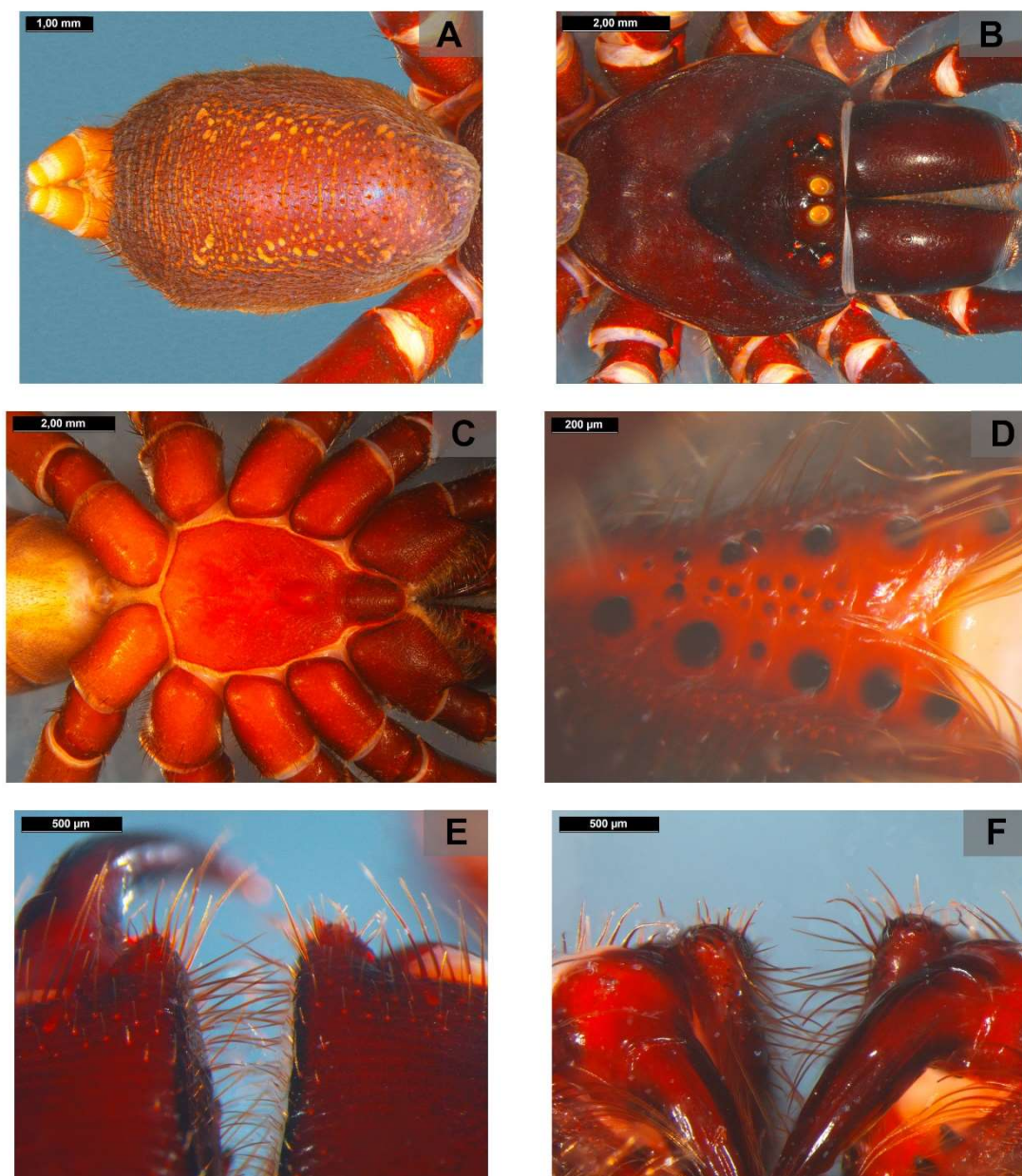


FIGURE 144 – *Actinopus azaghal* n. sp., male: A–F MCTP 11531: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

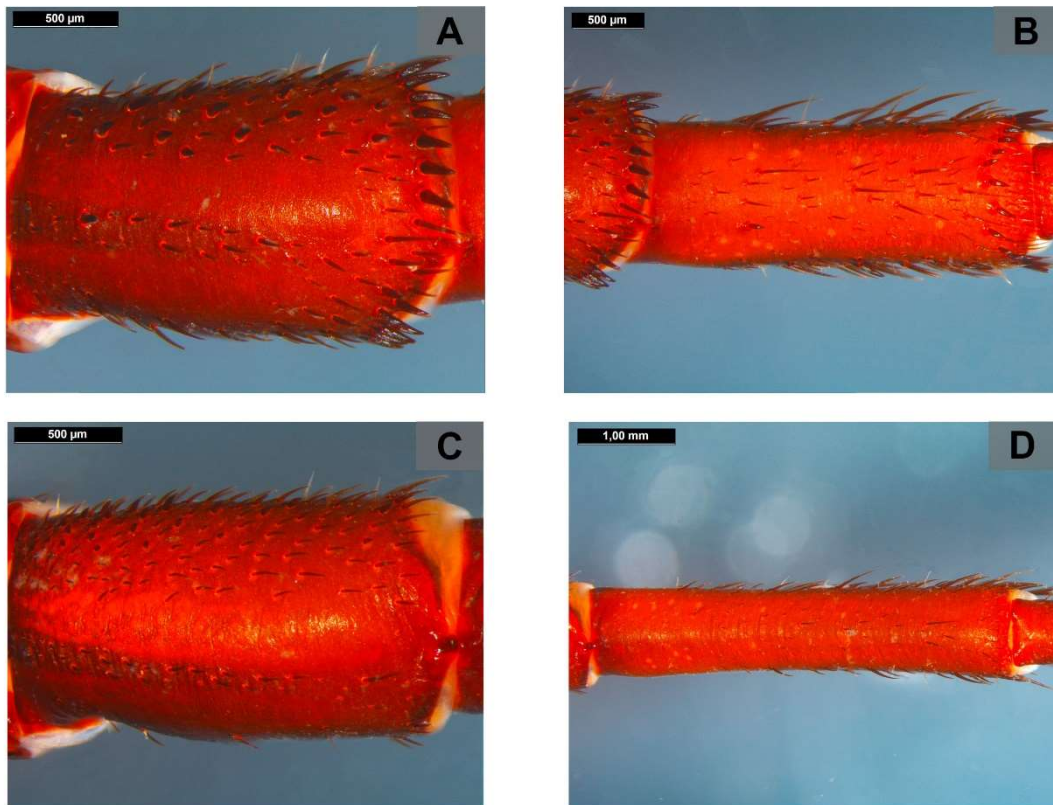


FIGURE 145 – *Actinopus azaghal* n. sp., male: A–D MCTP 11531: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

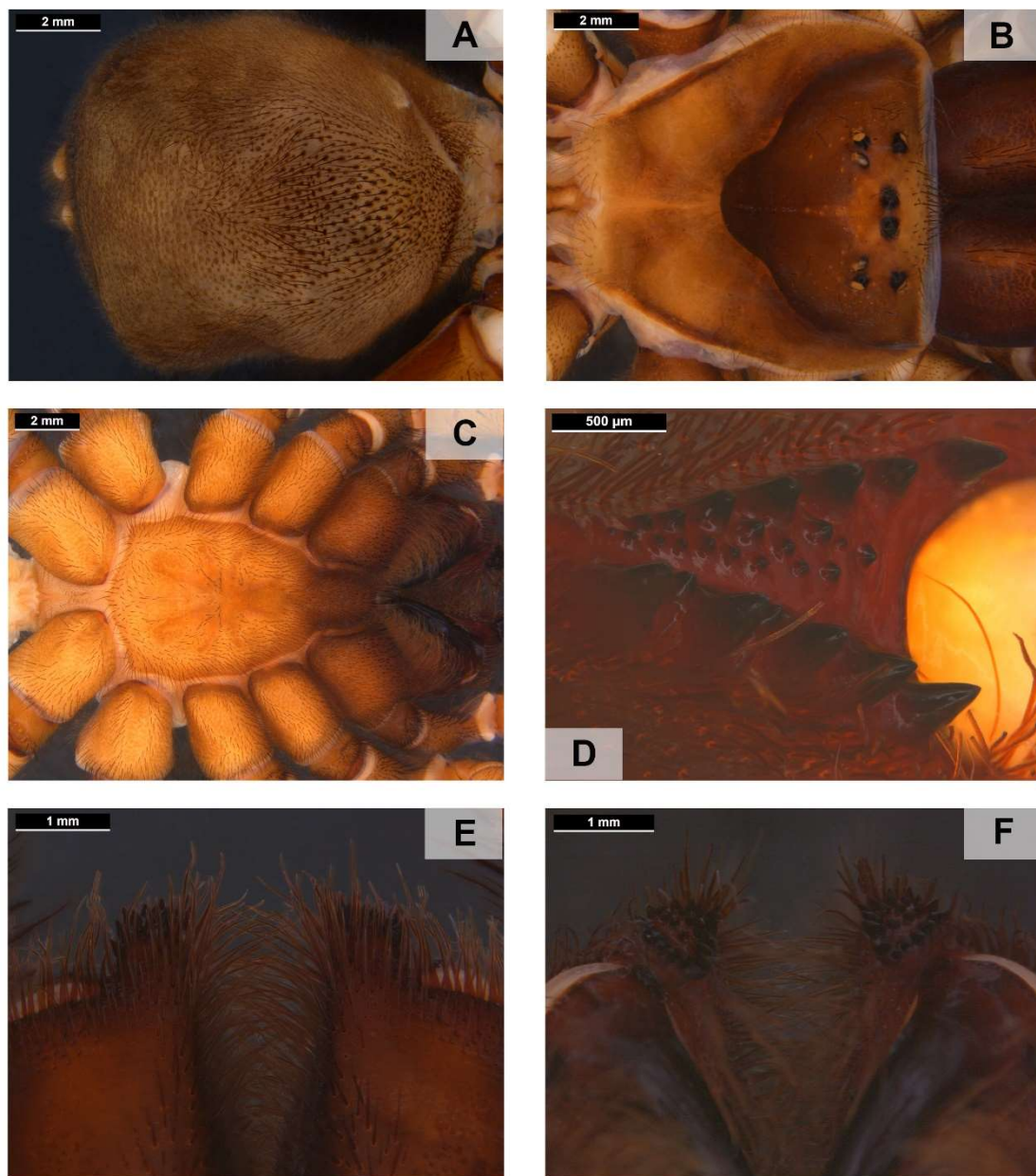


FIGURE 146 – *Actinopus azaghal* n. sp., female: A–F CZUFMT-ARAC: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

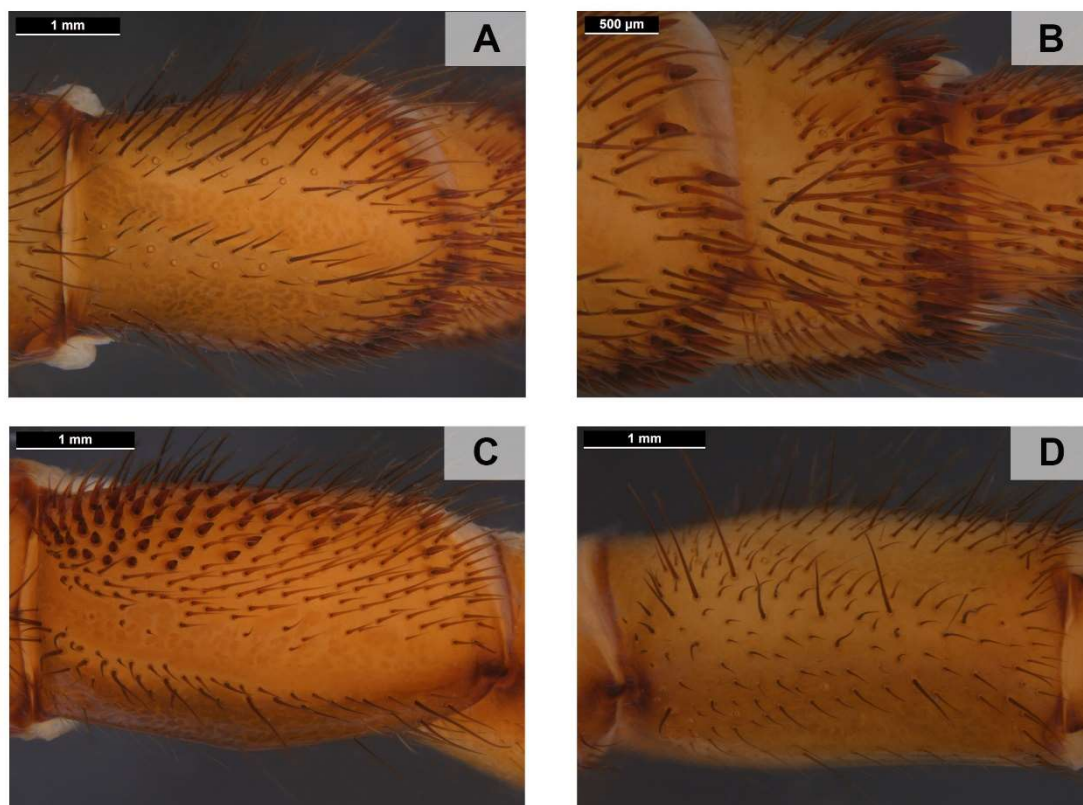


FIGURE 147 – *Actinopus azaghal* n. sp., female: A–D CZUFMT-ARAC: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

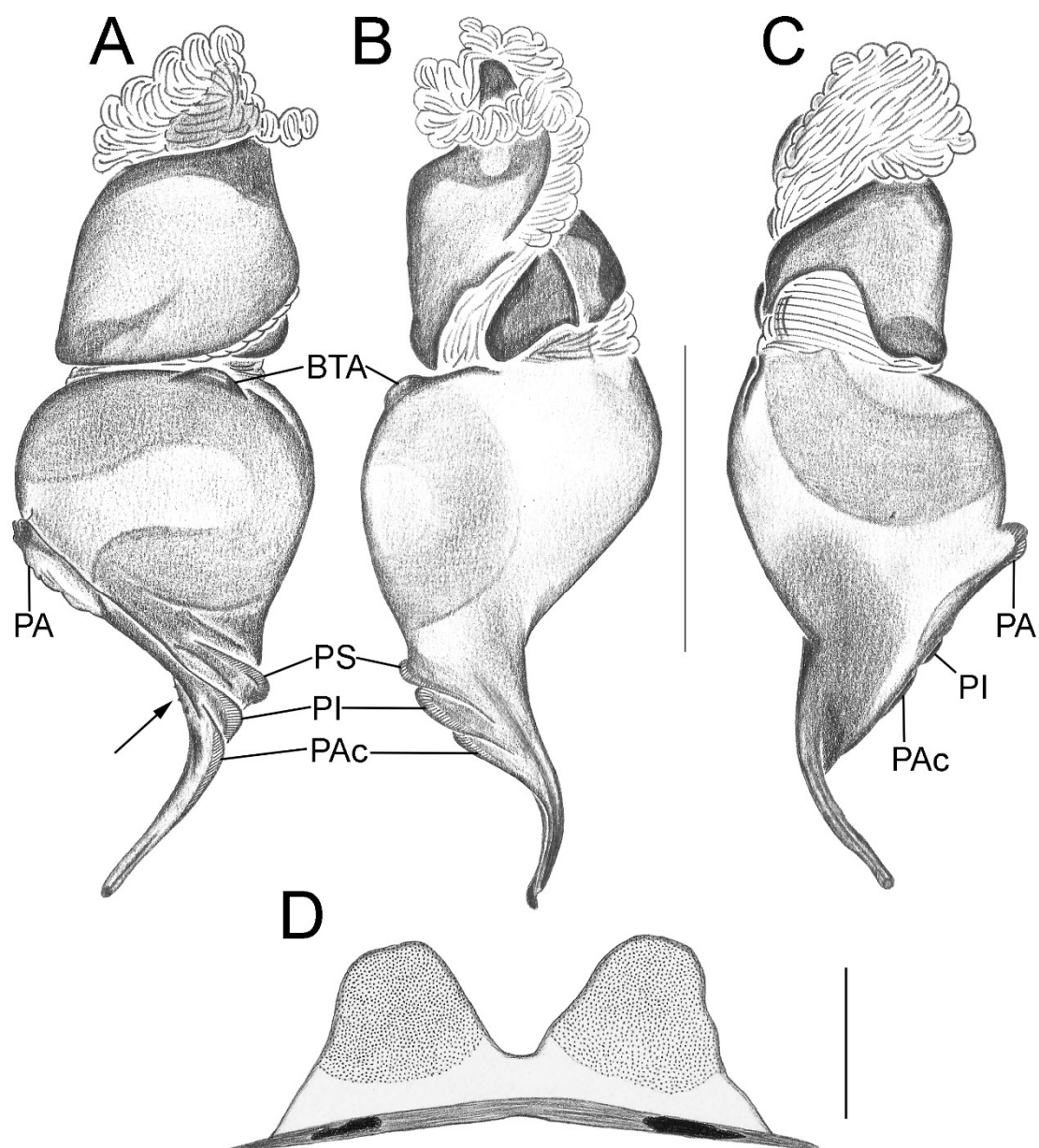


FIGURE 148 – *Actinopus azaghal* n. sp., male: A–C MCTP: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrow: Serrated area. Paratype, female: D CZUFMT-ARAC: D. Spermathecae, dorsal view. Scales lines: Male: 1 mm; Female: 0.5 mm.

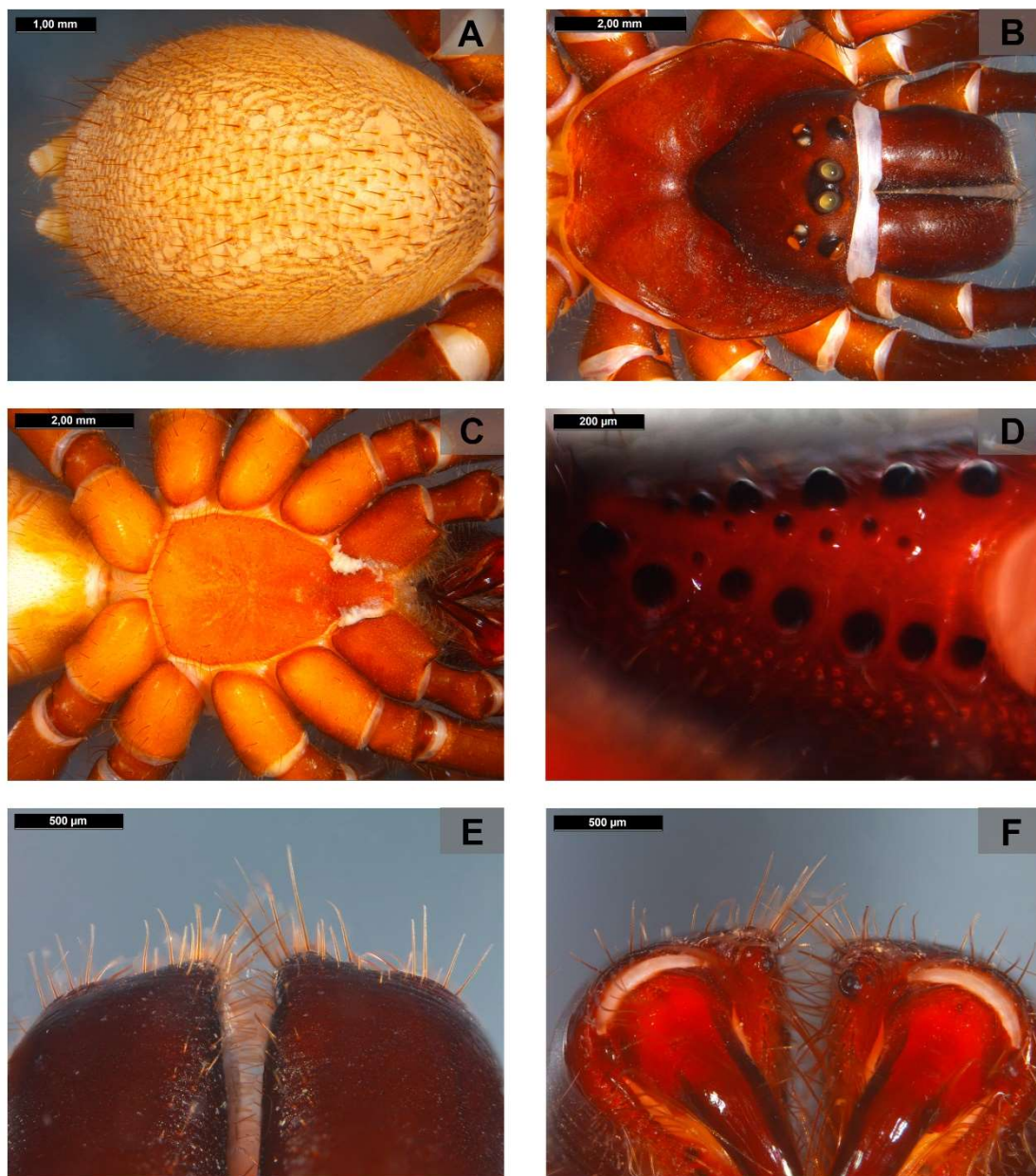


FIGURE 149 – *Actinopus itacolomi* n. sp., male: A–F IBSP: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

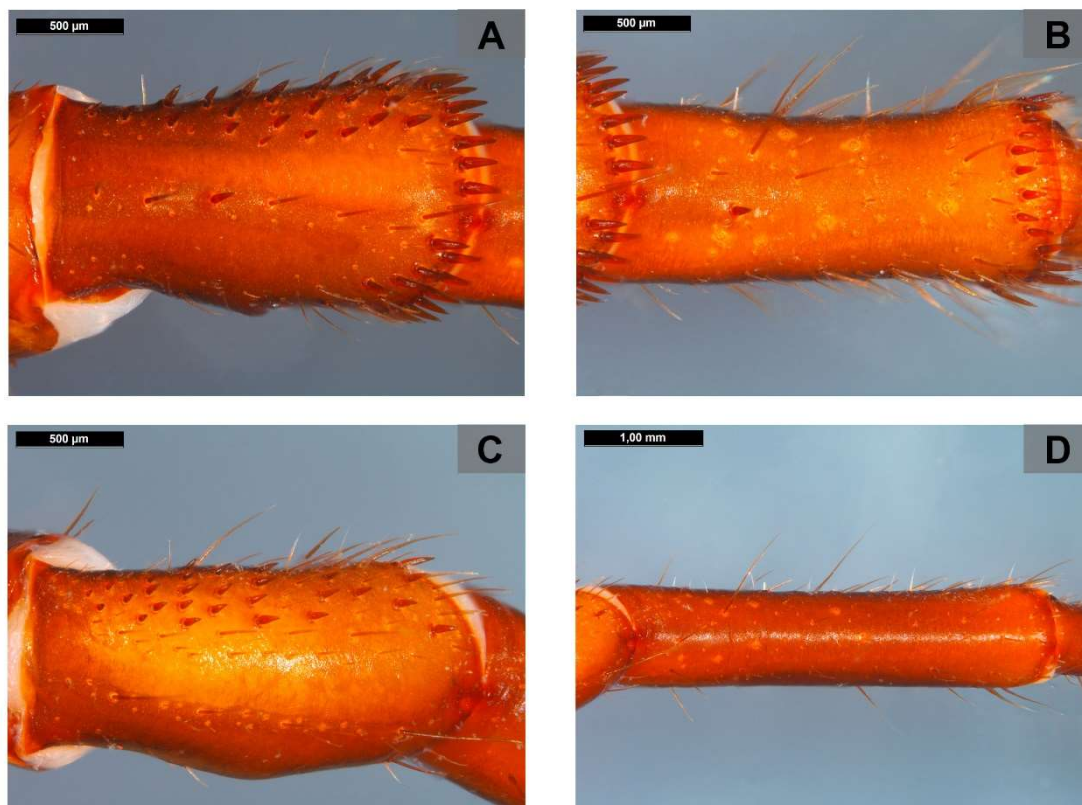


FIGURE 150 – *Actinopus itacolomi* n. sp., male: A–D IBSP: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

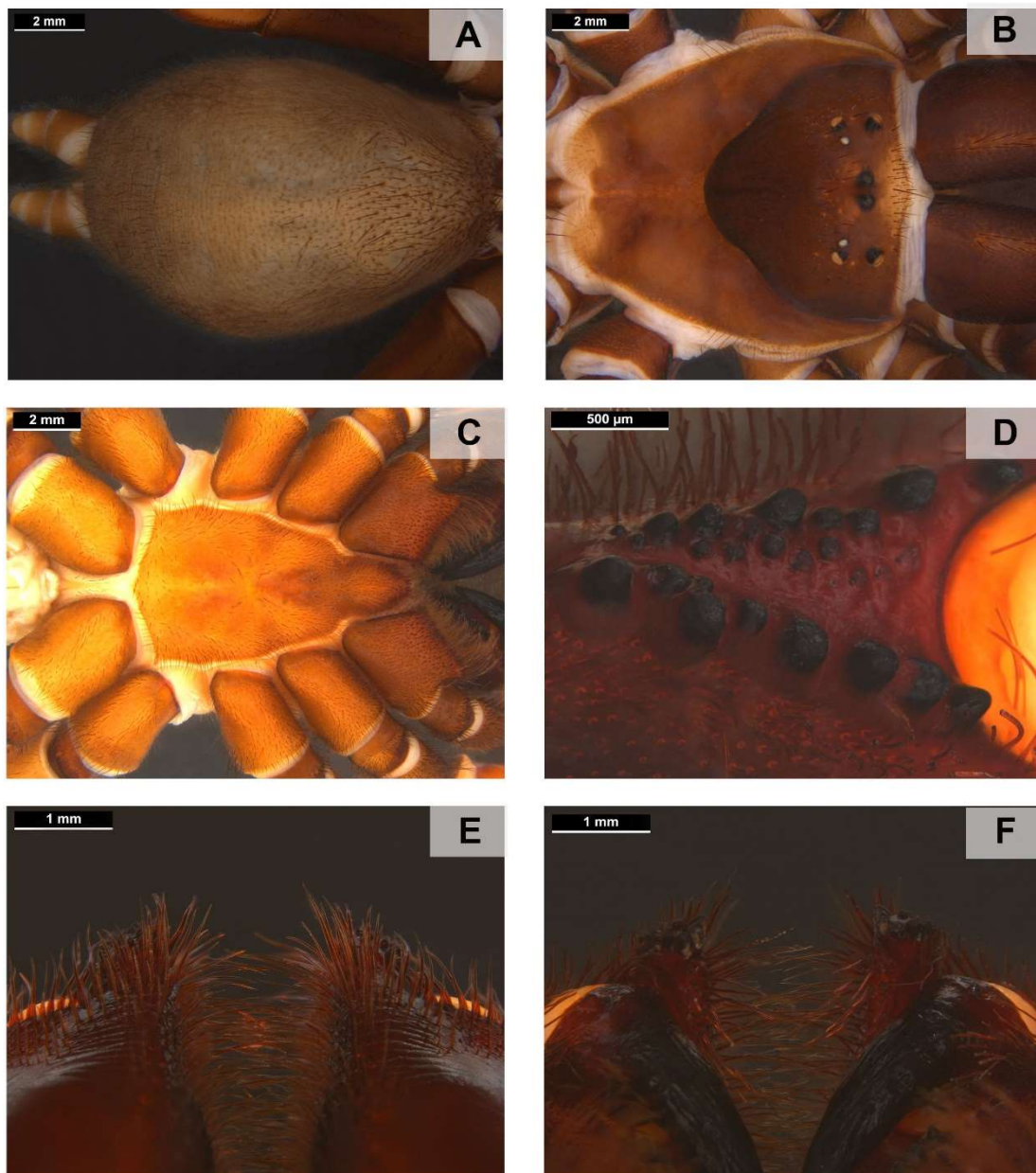


FIGURE 151 – *Actinopus itacolomi* n. sp., female: A–F UFMG 18876: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

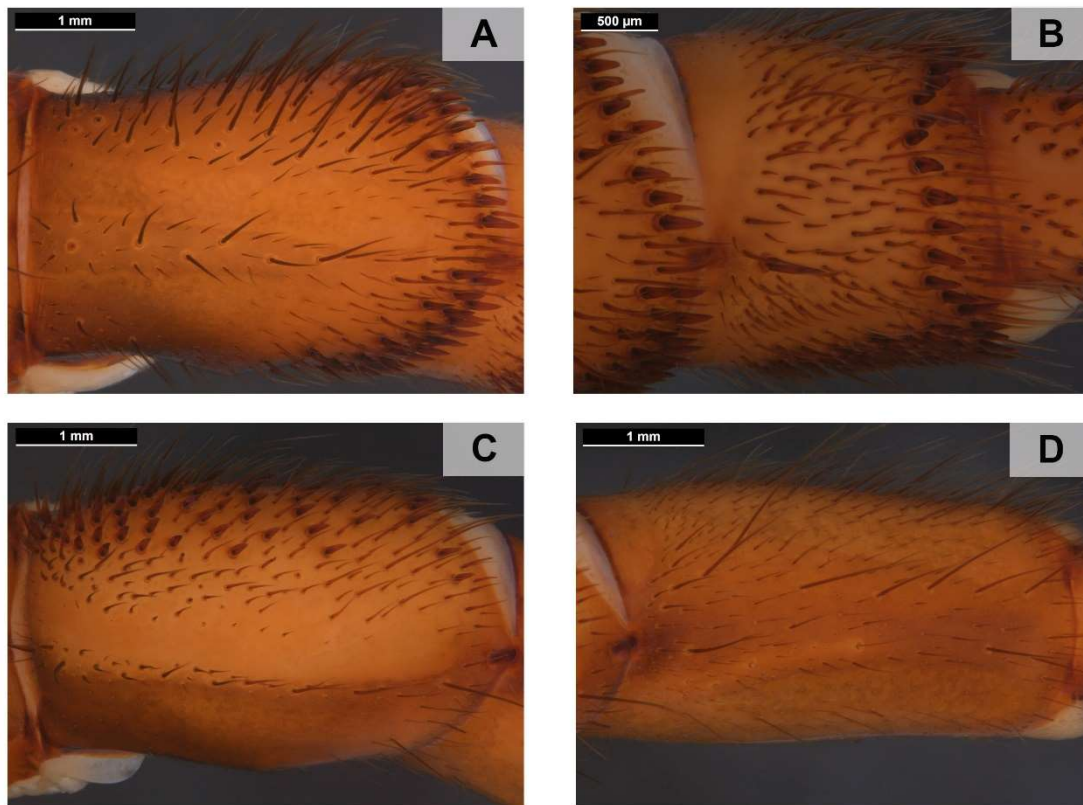


FIGURE 152 – *Actinopus itacolomi* n. sp., female: A–D UFMG 18876: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

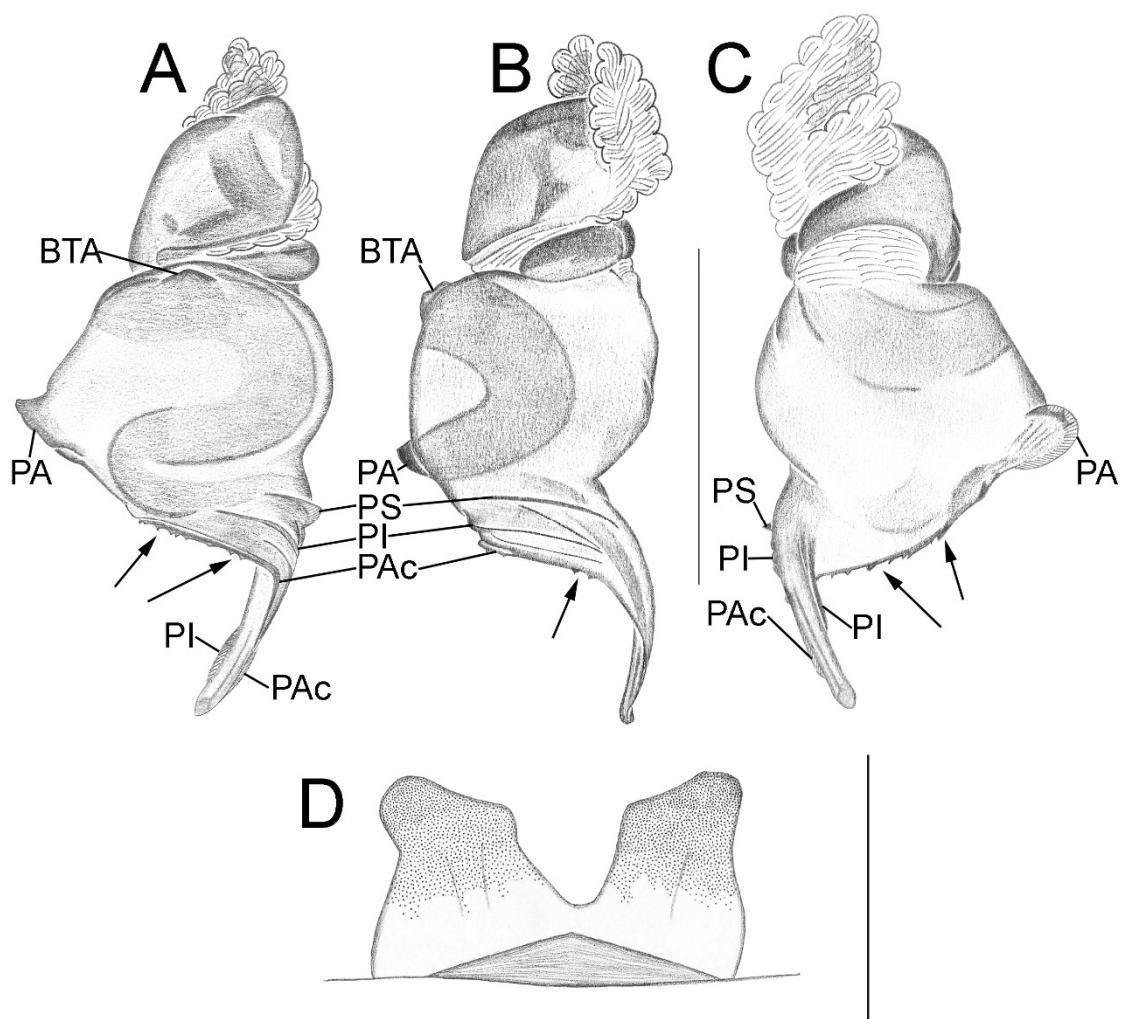


FIGURE 153 – *Actinopus itacolomi* n. sp., male: A–C IBSP: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Paratype, female: D UFMG 18876: D. Spermathecae, dorsal view. Scales lines: 1 mm.

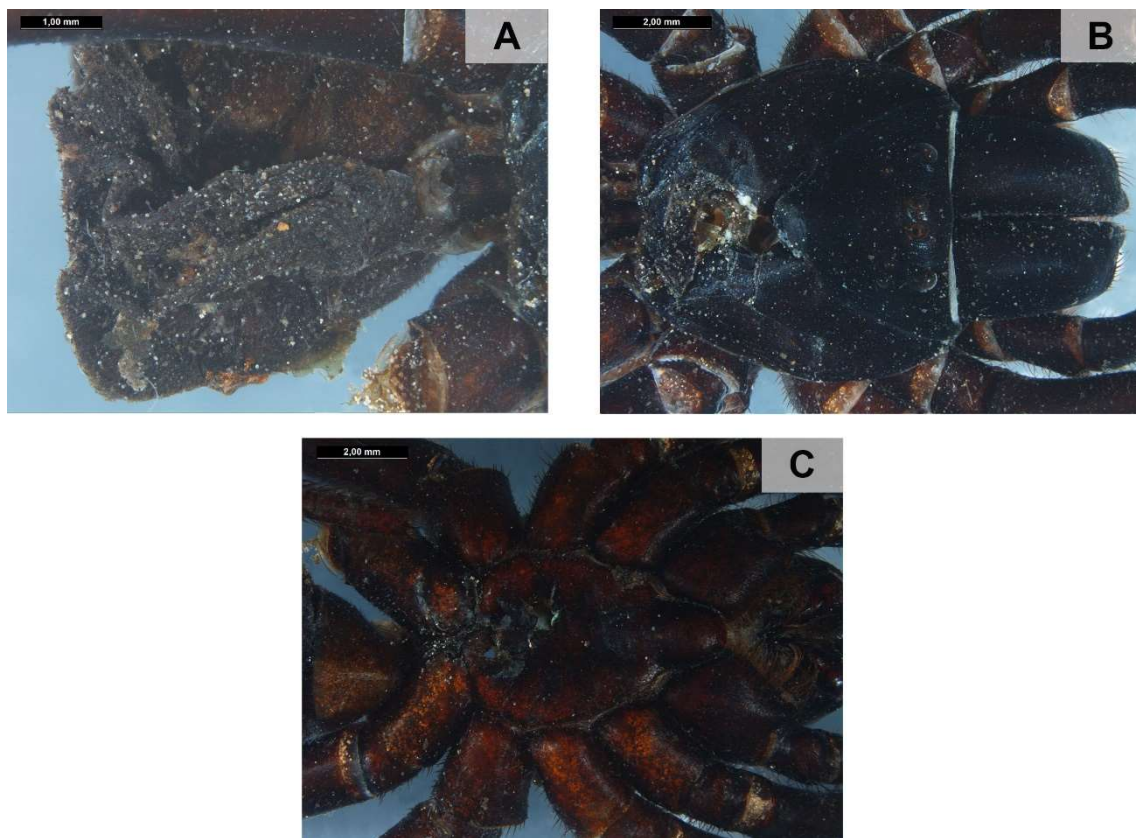


FIGURE 154 – *Actinopus longipalpis* C. L. Koch, 1842, holotype, male: A–C ZMB 2107: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral.

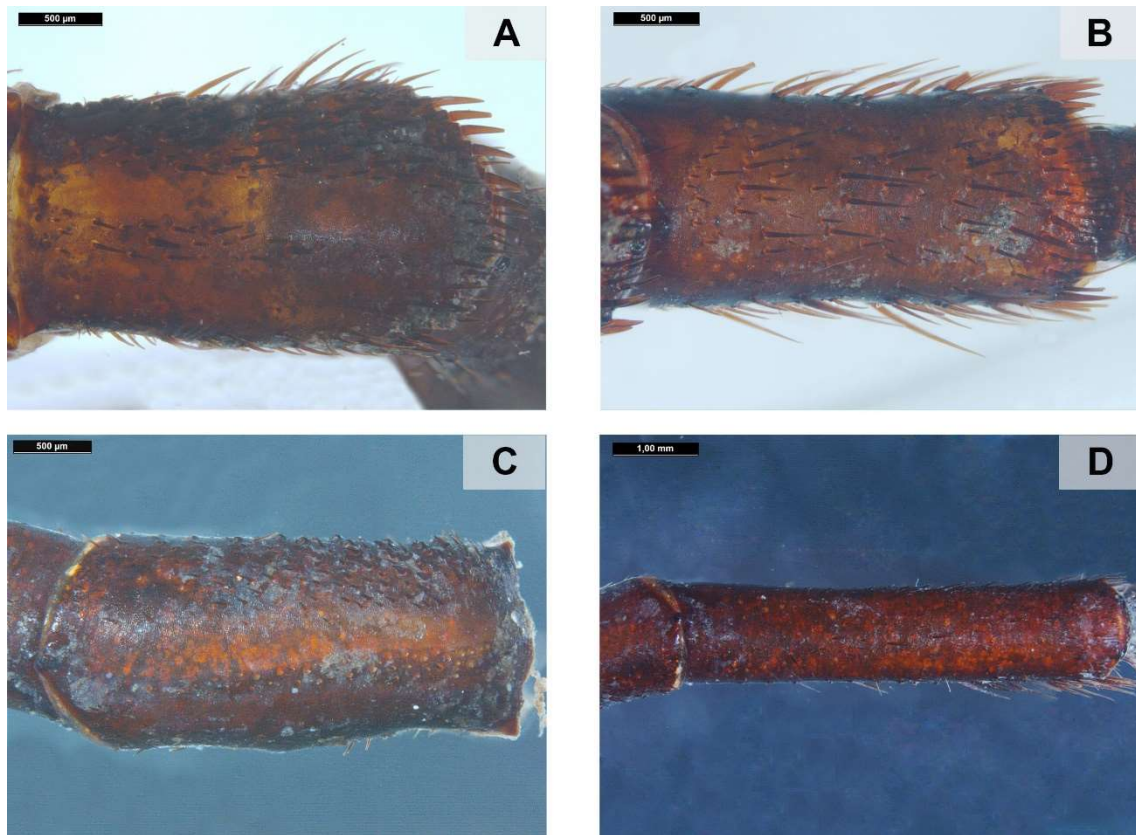


FIGURE 155 – *Actinopus longipalpis* C. L. Koch, 1842, holotype, male: A–D ZMB 2107: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

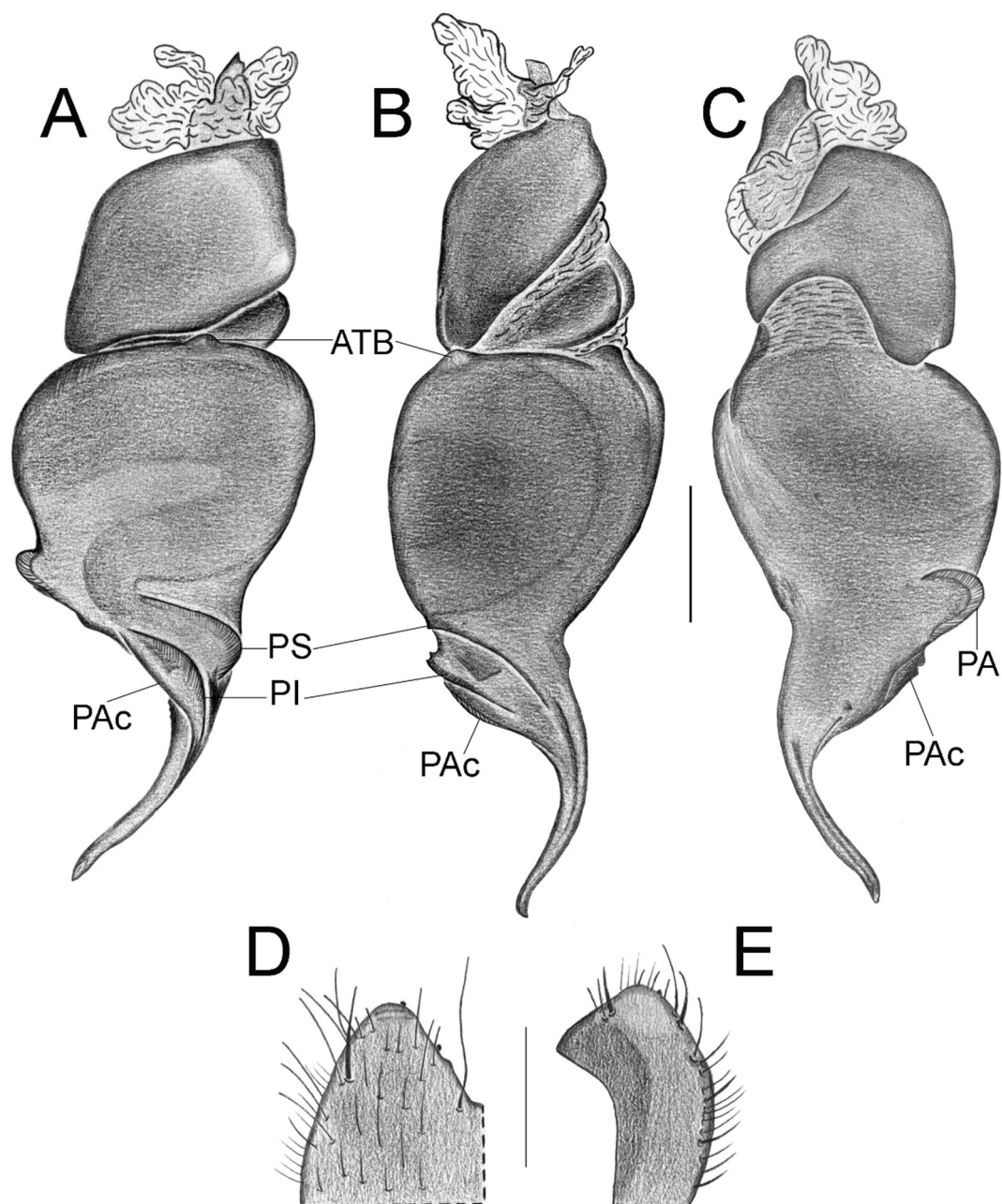


FIGURE 156 – *Actinopus longipalpis* C. L. Koch, 1842, holotype, male: A–E ZMB 2107: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** - Basal Tegular Apophysis; **PAc** - Prolateral Accessory keel; **PI** - Prolateral Inferior keel; **PS** - Prolateral Superior keel. D. Rastellum, dorsal; E. Rastellum, ventral. Scale line: 0.5 mm.

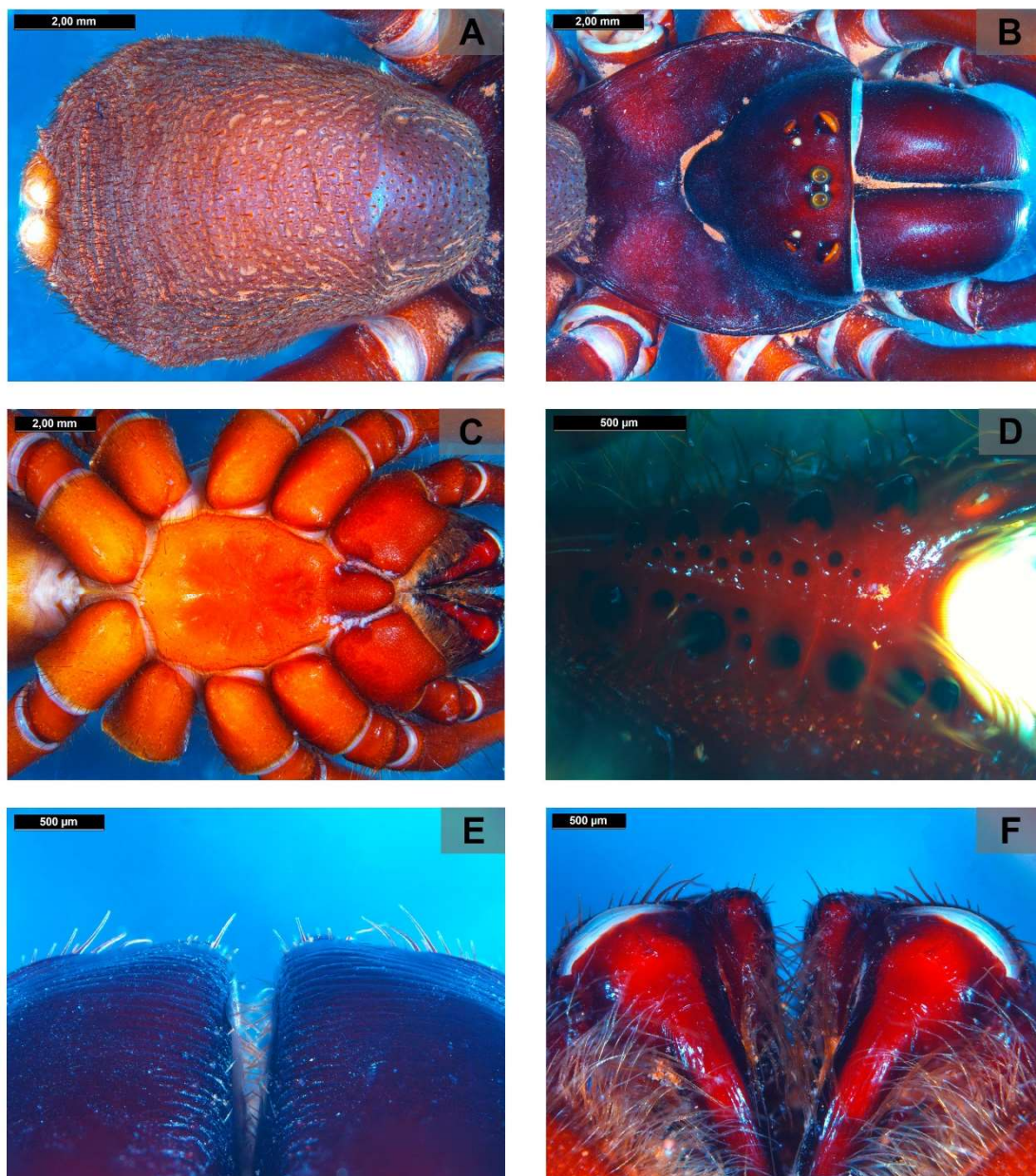


FIGURE 157 – *Actinopus insignis* (Holmberg, 1881), male: A–F MACN-Ar 19824: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

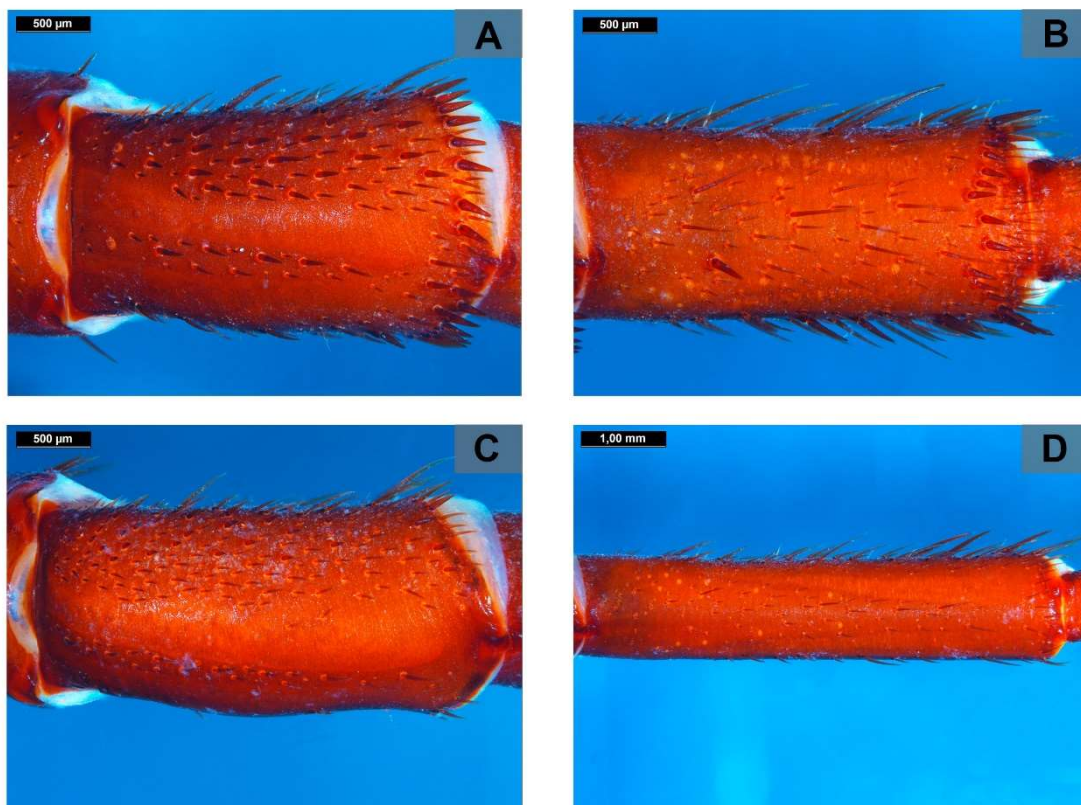


FIGURE 158 – *Actinopus insignis* (Holmberg, 1881), male: A–D MACN-Ar 19824: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

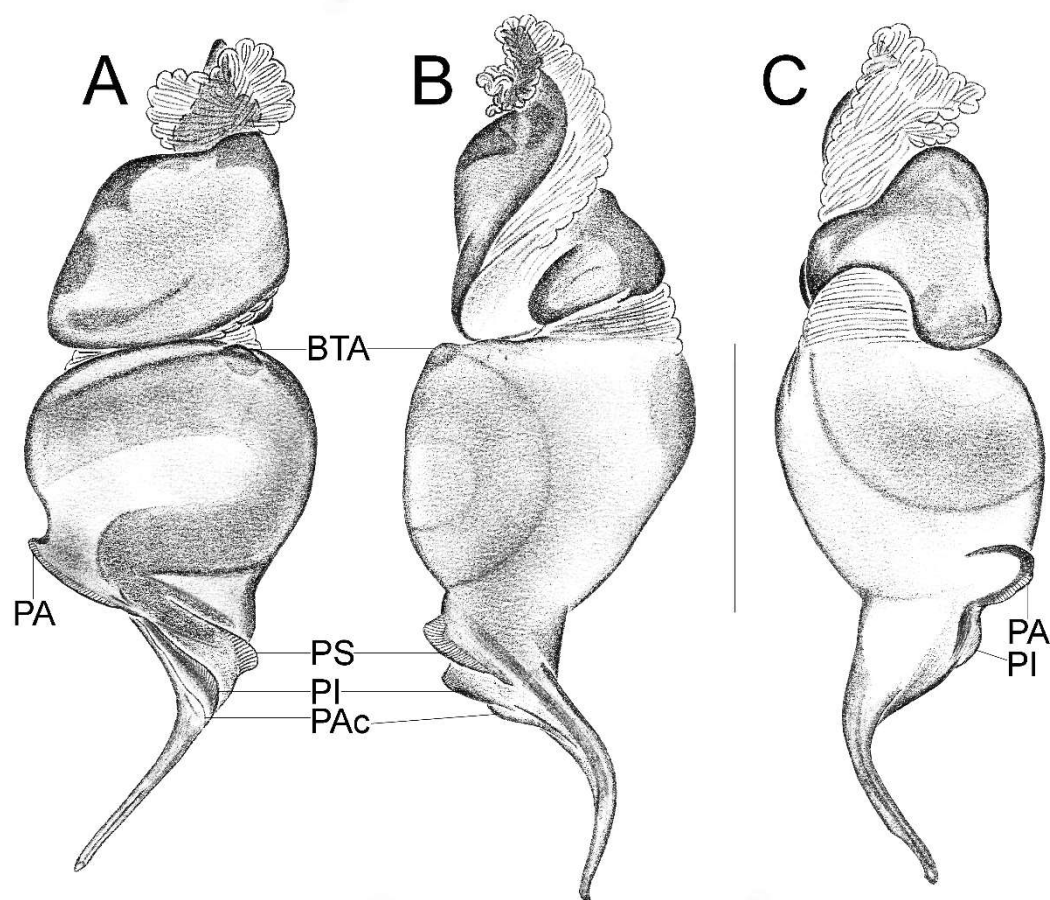


FIGURE 159 – *Actinopus insignis* (Holmberg, 1881), male: A–C ZMB 19824: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

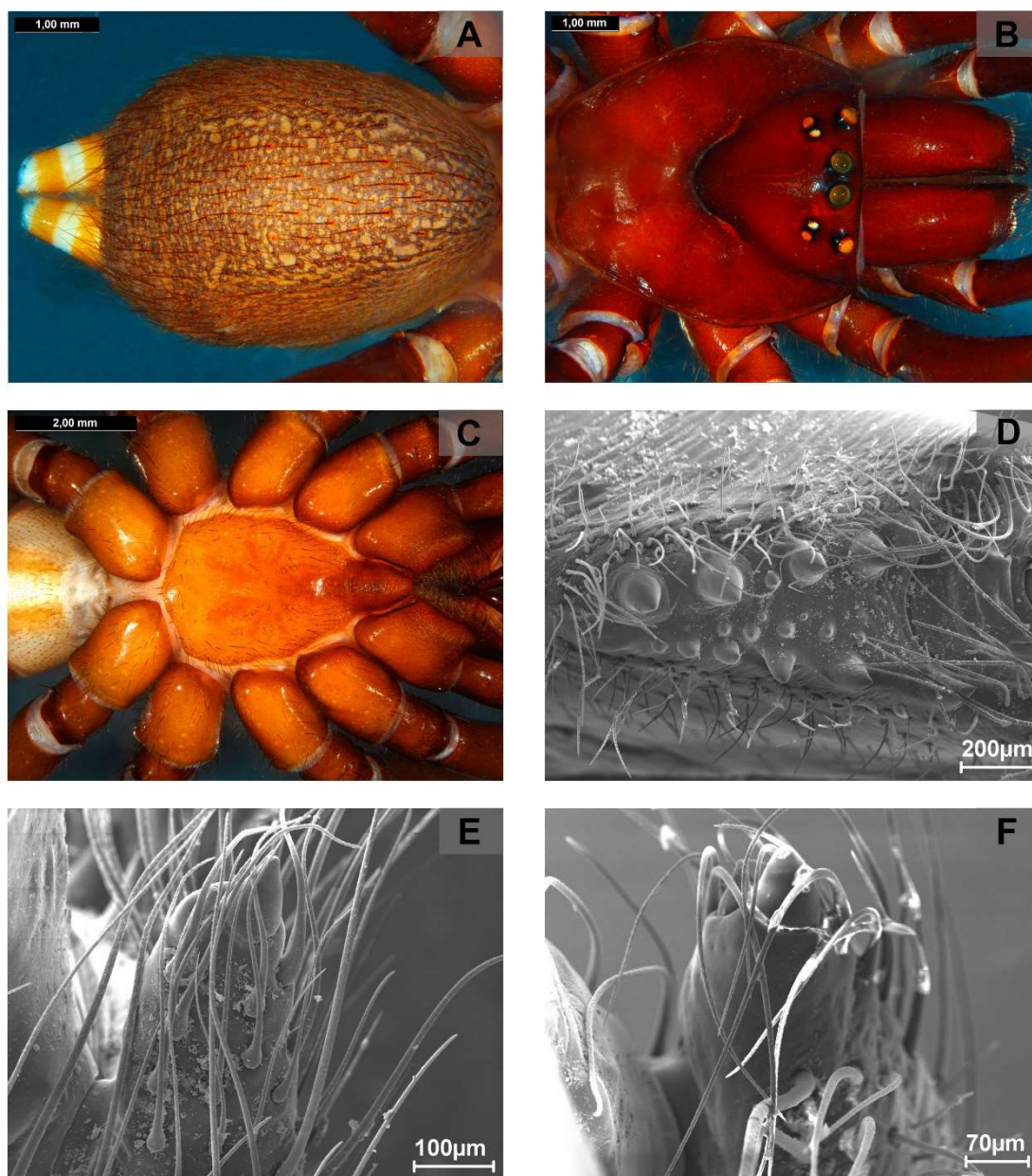


FIGURE 160 – *Actinopus parafundulus* n. sp., male: A–F MPEG 2242 (Automontage photos) and MPEG 2241 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

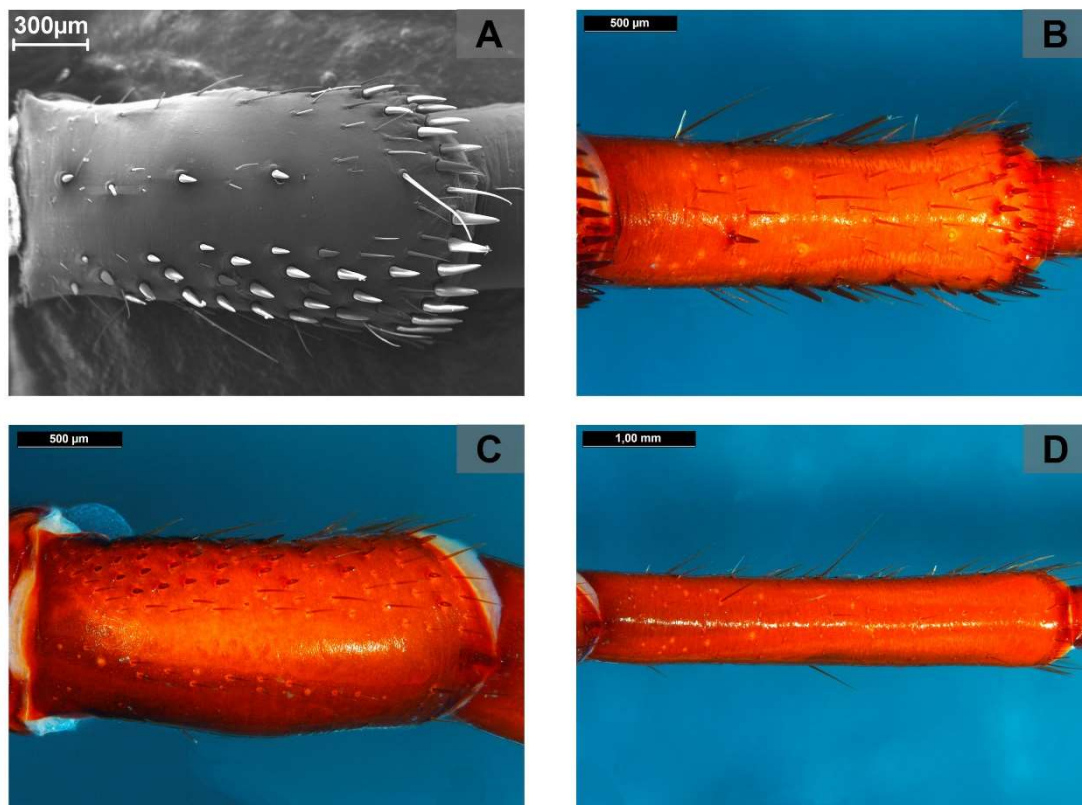


FIGURE 161 – *Actinopus parafundulus* n. sp., male: A–D MPEG 2242 (Automontage photos) and MPEG 2241 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

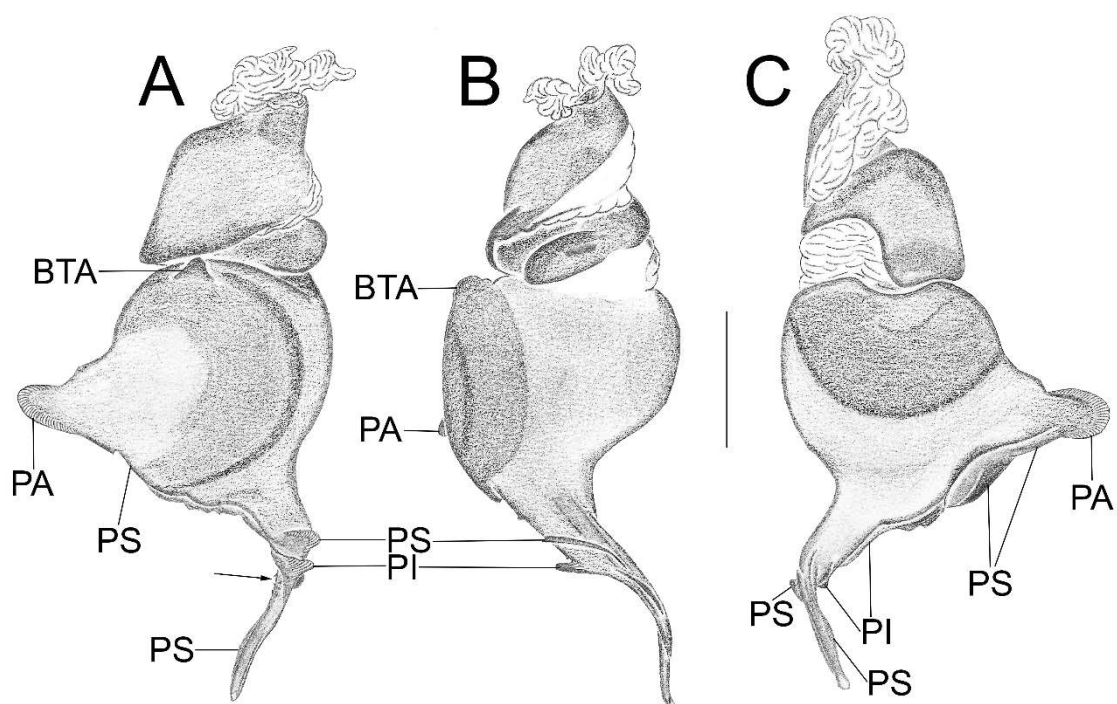


FIGURE 162 – *Actinopus parafundulus* n. sp., male: A–C MPEG 22073: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Arrow: Serrated area. Scale line: 1 mm.

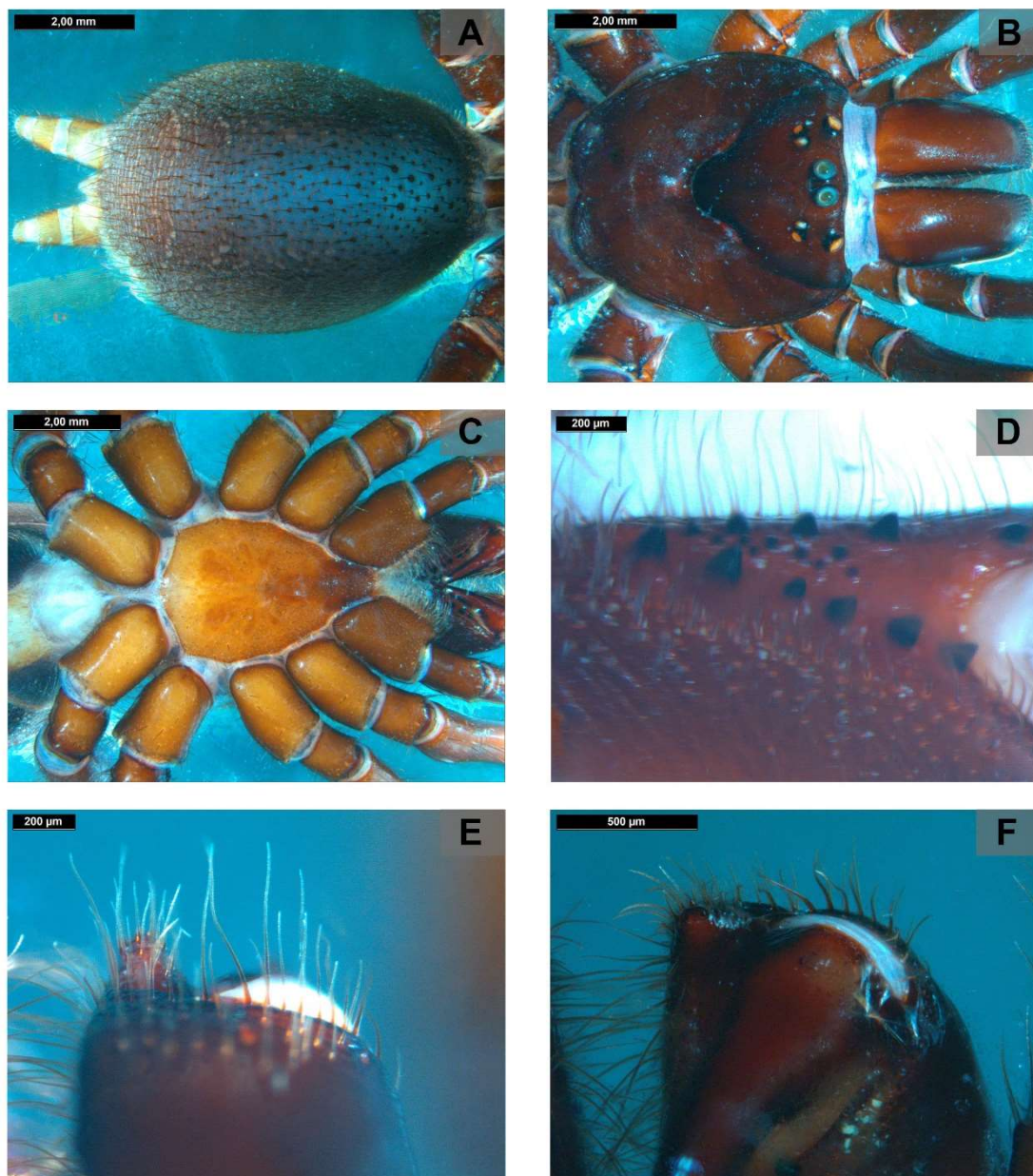


FIGURE 163 – *Actinopus urucui* n. sp., male: A–F MPEG 22271: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

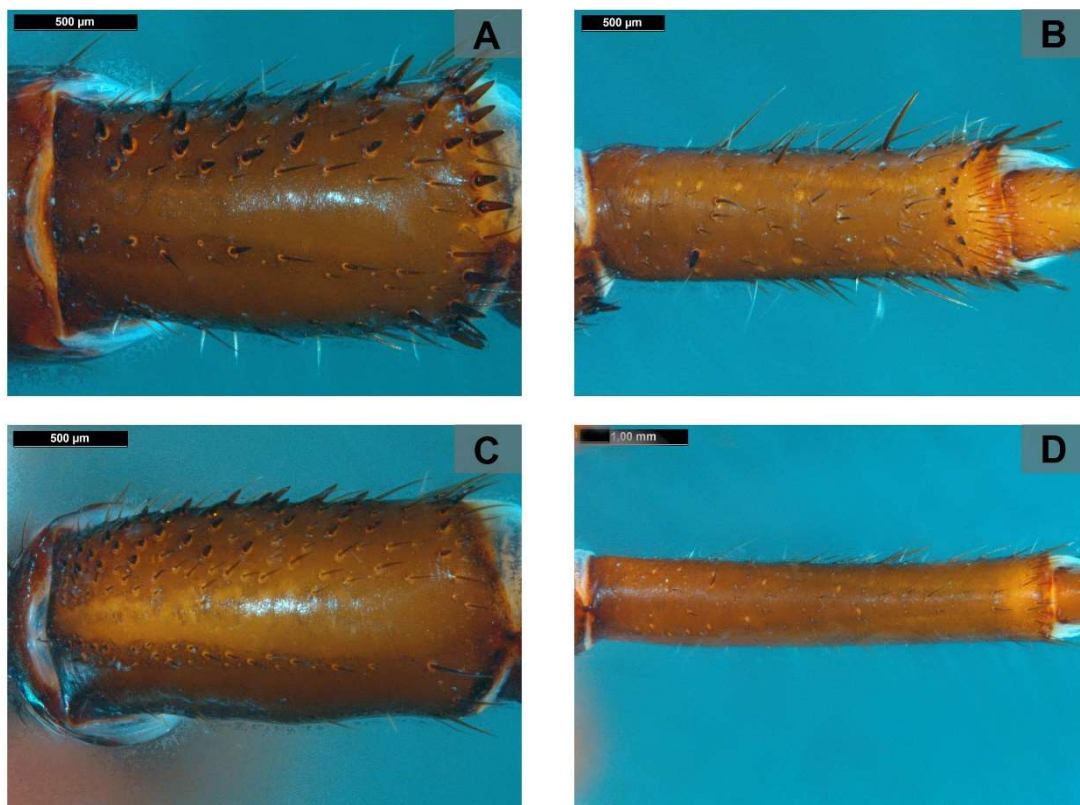


FIGURE 164 – *Actinopus urucui* n. sp., male: A–D MPEG 22271: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

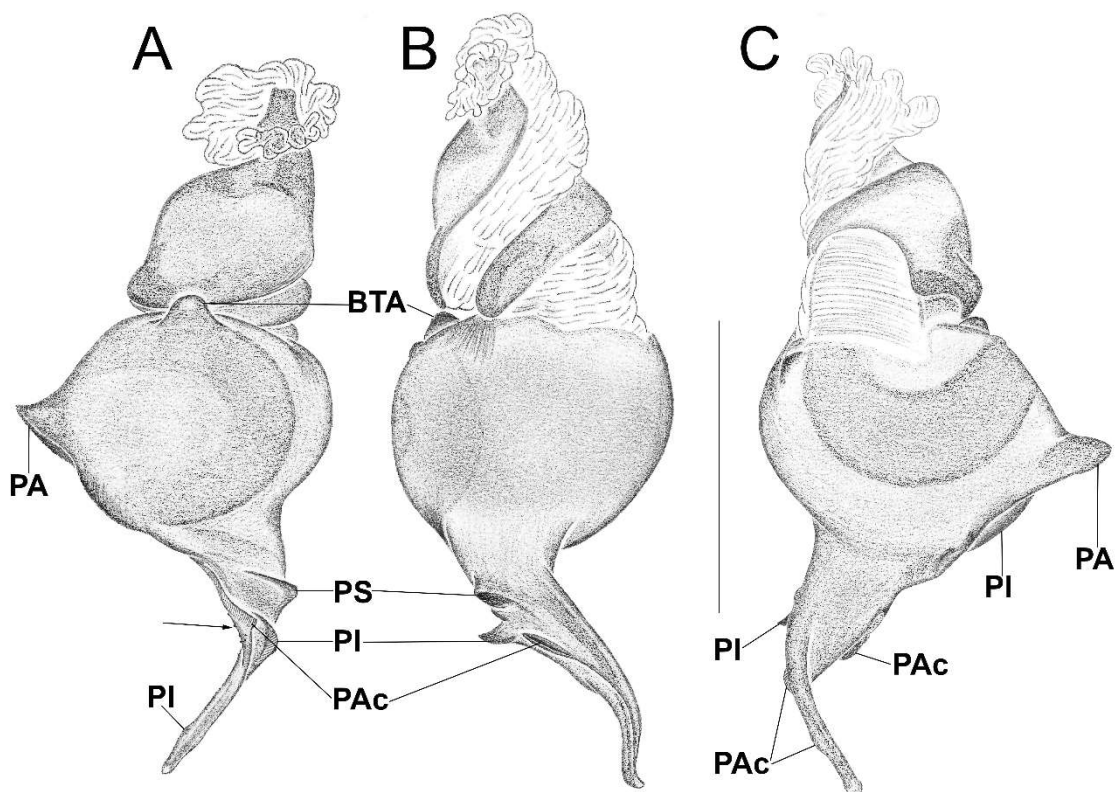


FIGURE 165 – *Actinopus urucui* n. sp., male: A–C MPEG 13206: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1 mm.

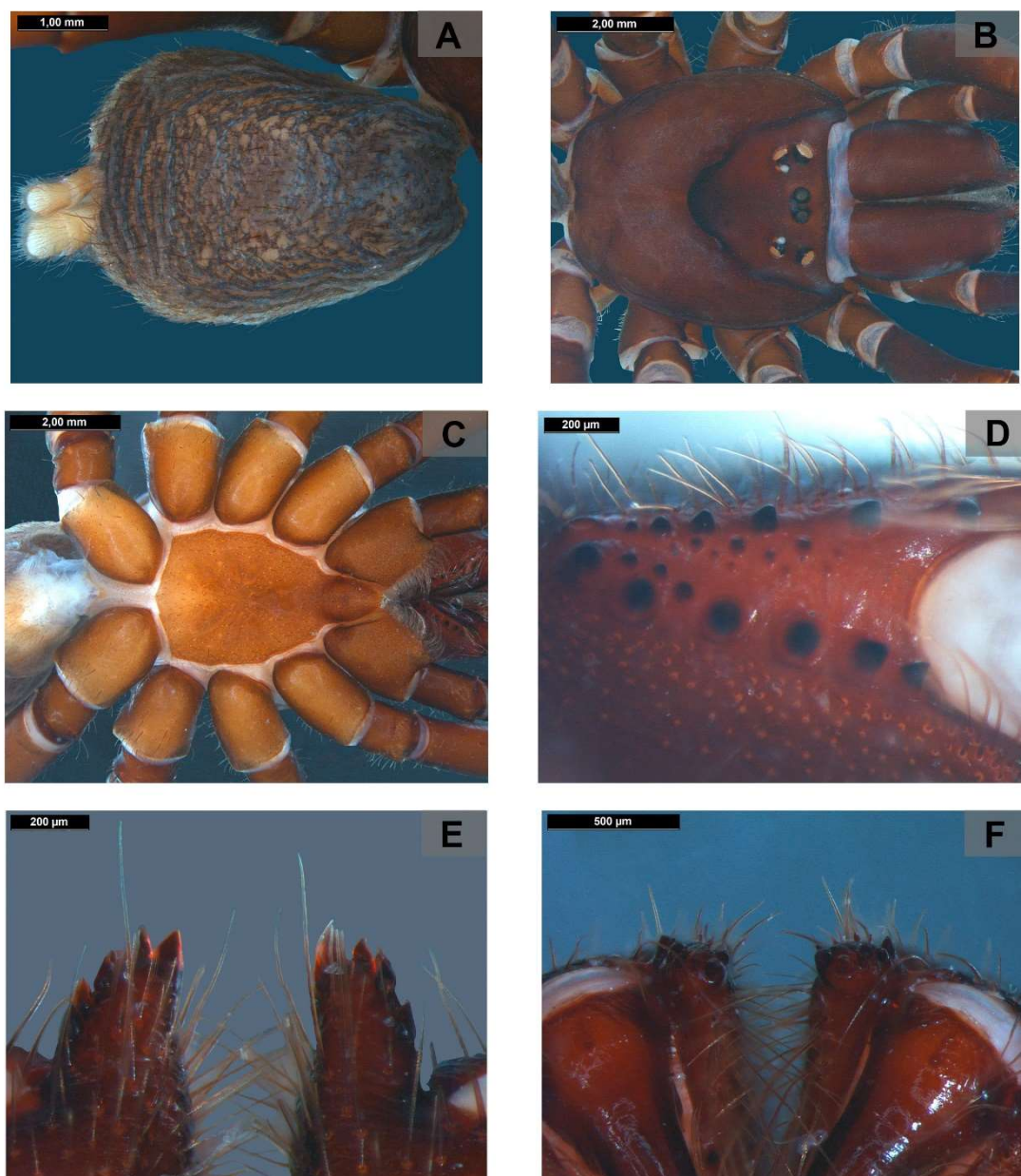


FIGURE 166 – *Actinopus reznori* n. sp., male: A–F IBSP 9992: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

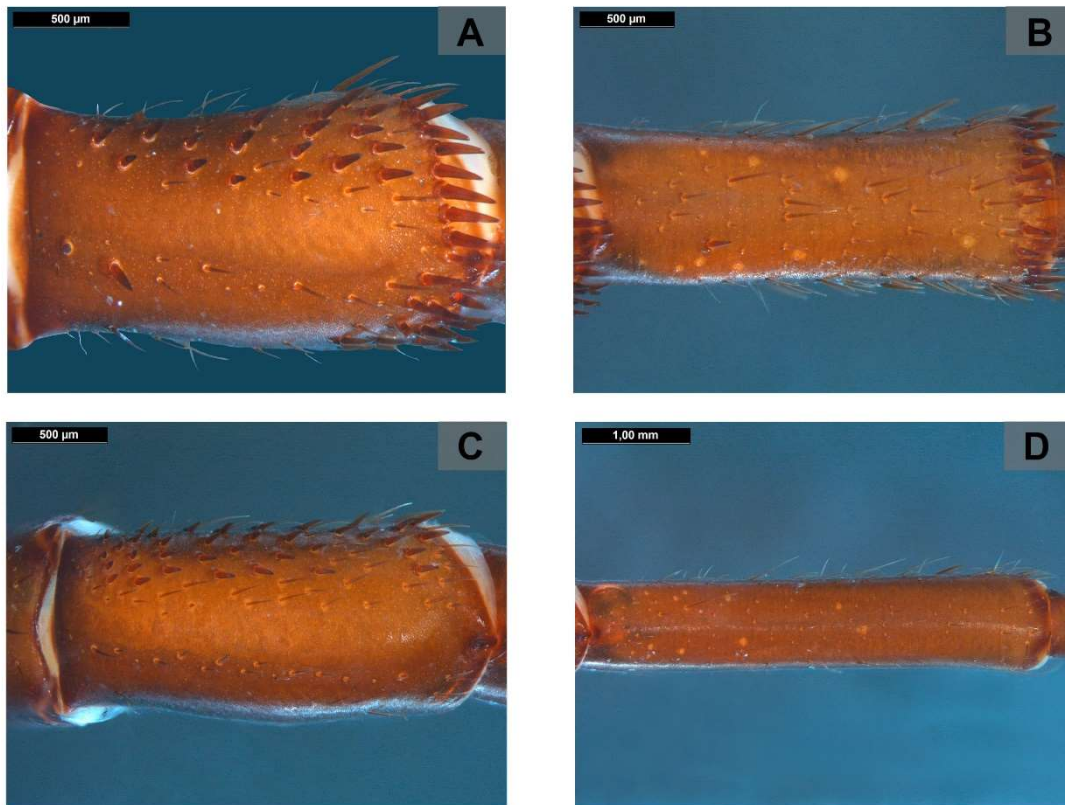


FIGURE 167 – *Actinopus reznori* n. sp., male: A–D IBSP 9992: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

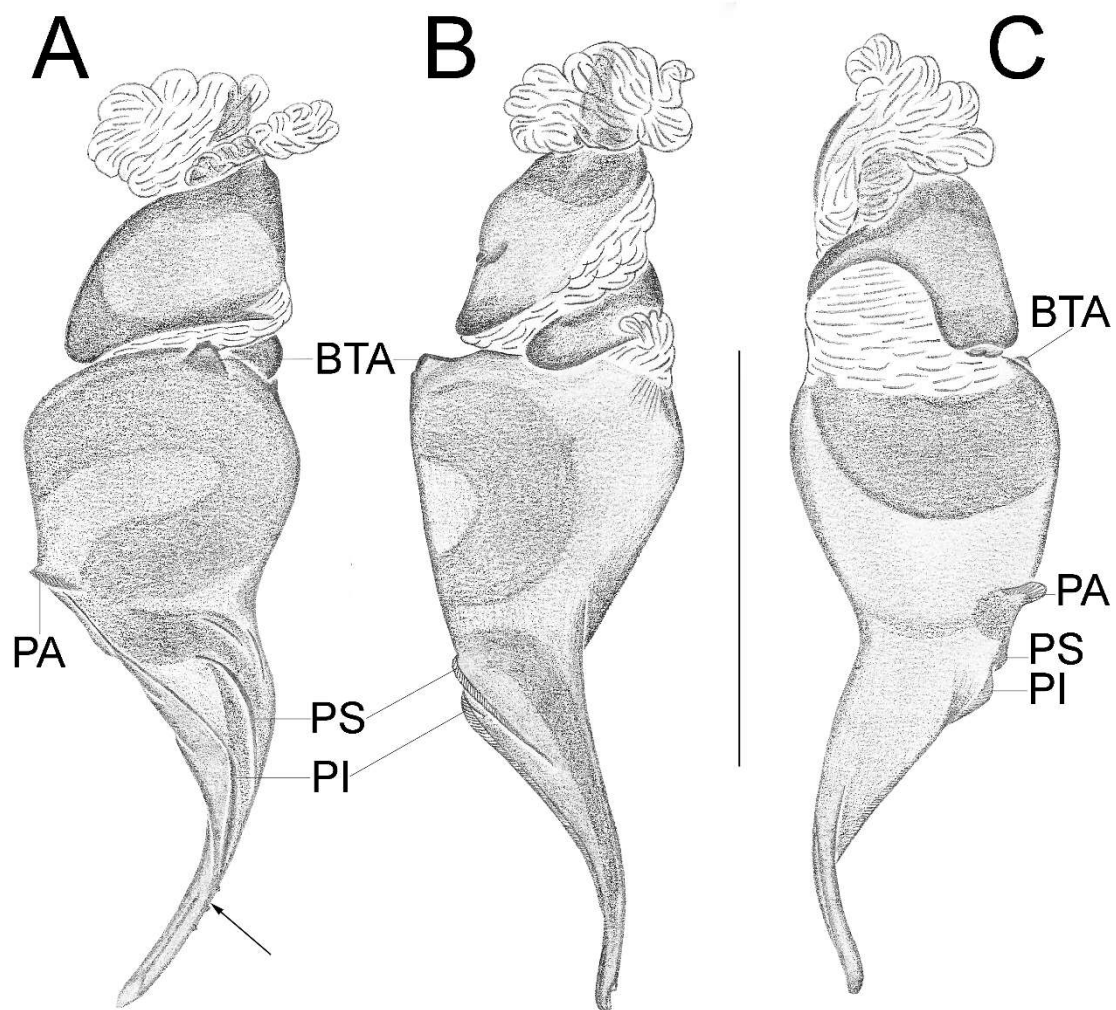


FIGURE 168 – *Actinopus reznori* n. sp., male: A–C IBSP 9992: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Arrow: Serrated area. Scale line: 1 mm.

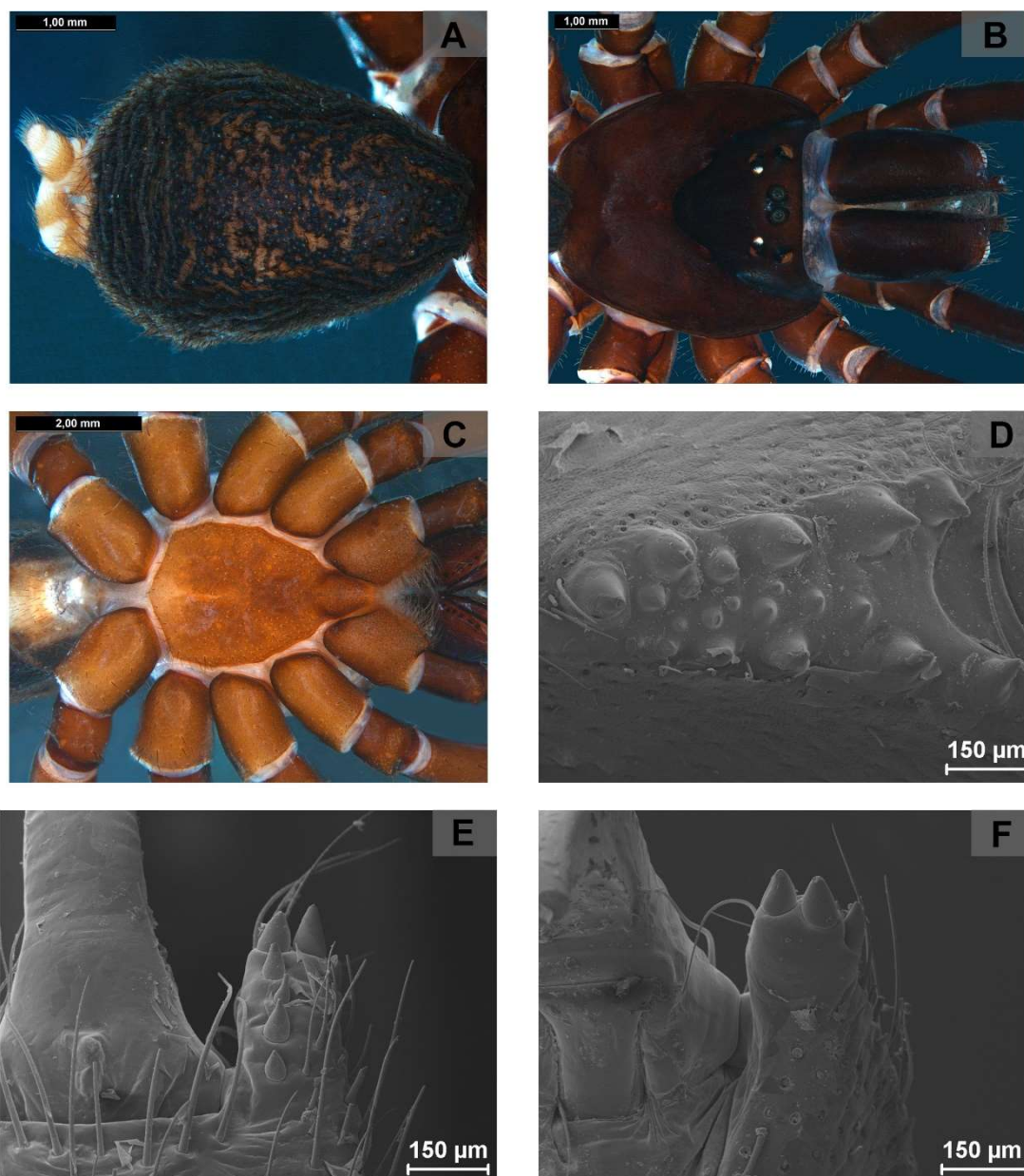


FIGURE 169 – *Actinopus anselmoi* n. sp., male: A–F IBSP 114469 (Automontage photos) and IBSP 107985 (SEM Images): A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

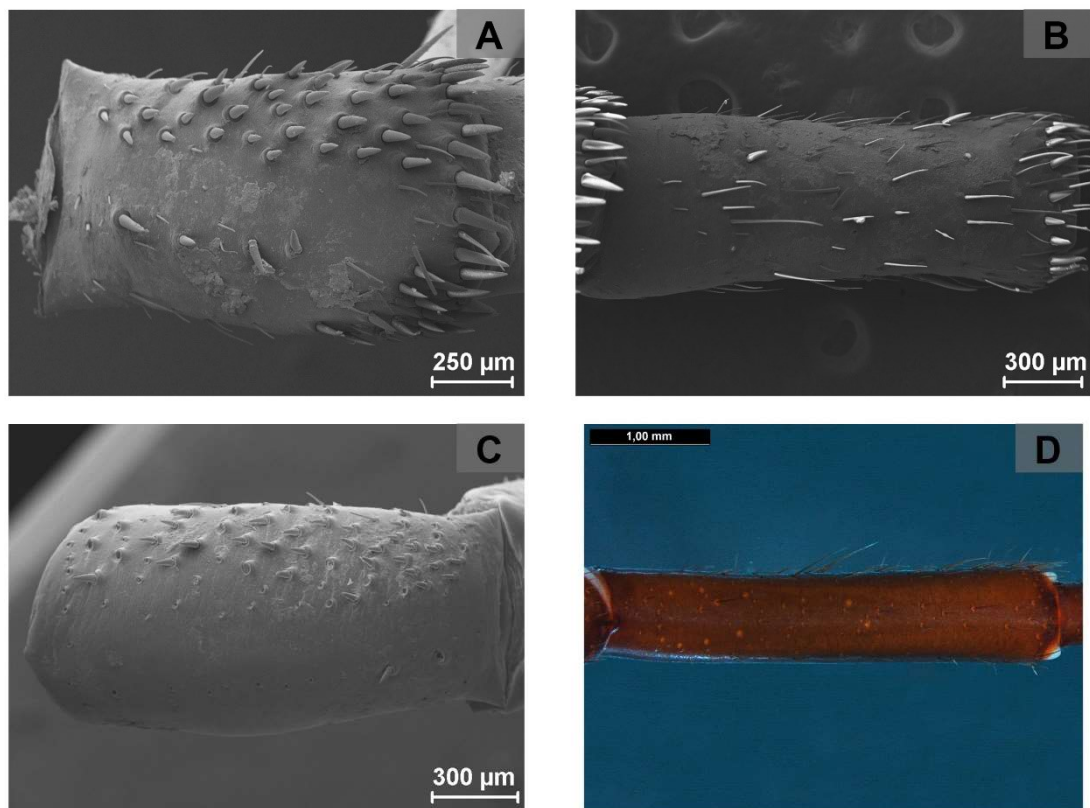


FIGURE 170 – *Actinopus anselmoi* n. sp., male: A–D IBSP 114469 (Automontage photos) and IBSP 107985 (SEM Images): A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

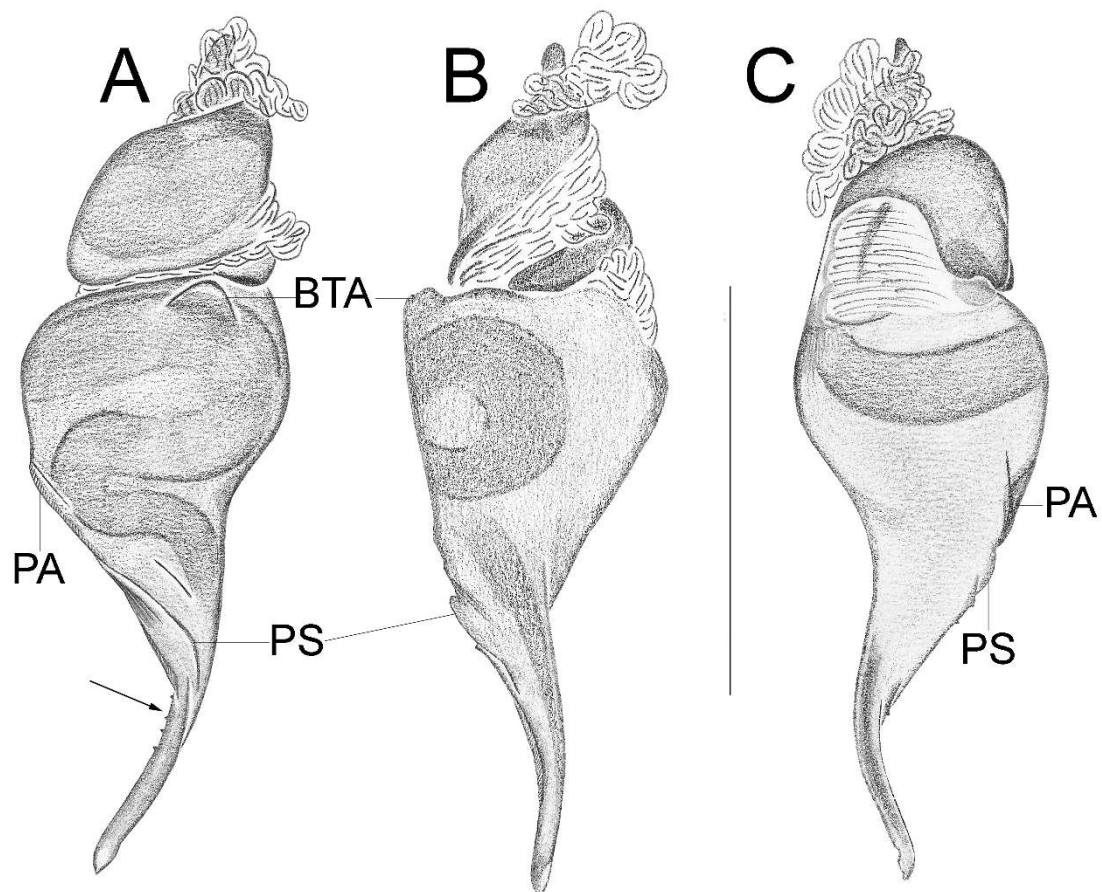


FIGURE 171 – *Actinopus anselmoi* n. sp., male: A–C IBSP 114469: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PS** – Prolateral Superior keel. Arrow: Serrated area. Scale line: 1 mm.

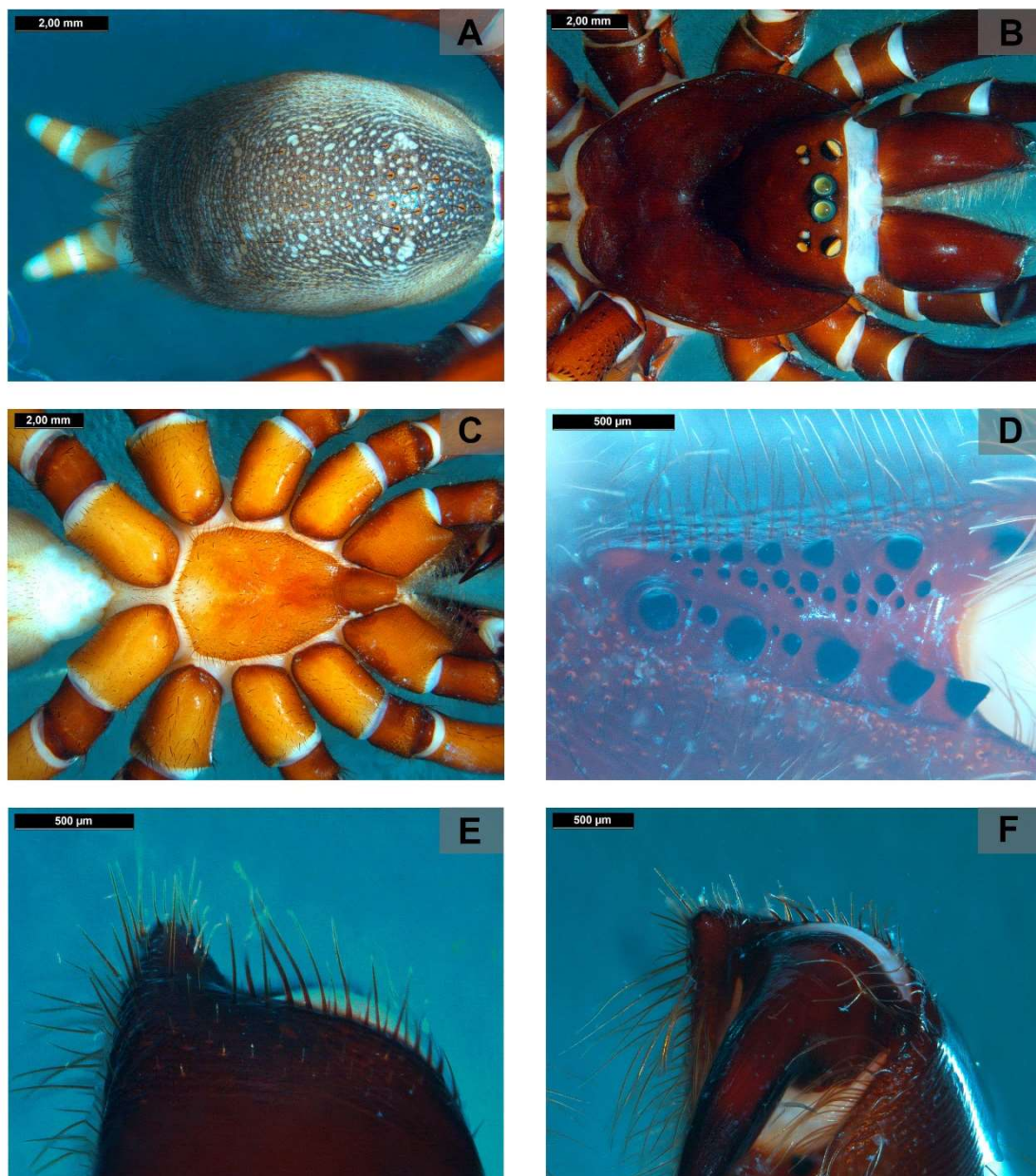


FIGURE 172 – *Actinopus cucutaensis* (Mello-Leitão, 1941), male: A–F INPA 3513: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

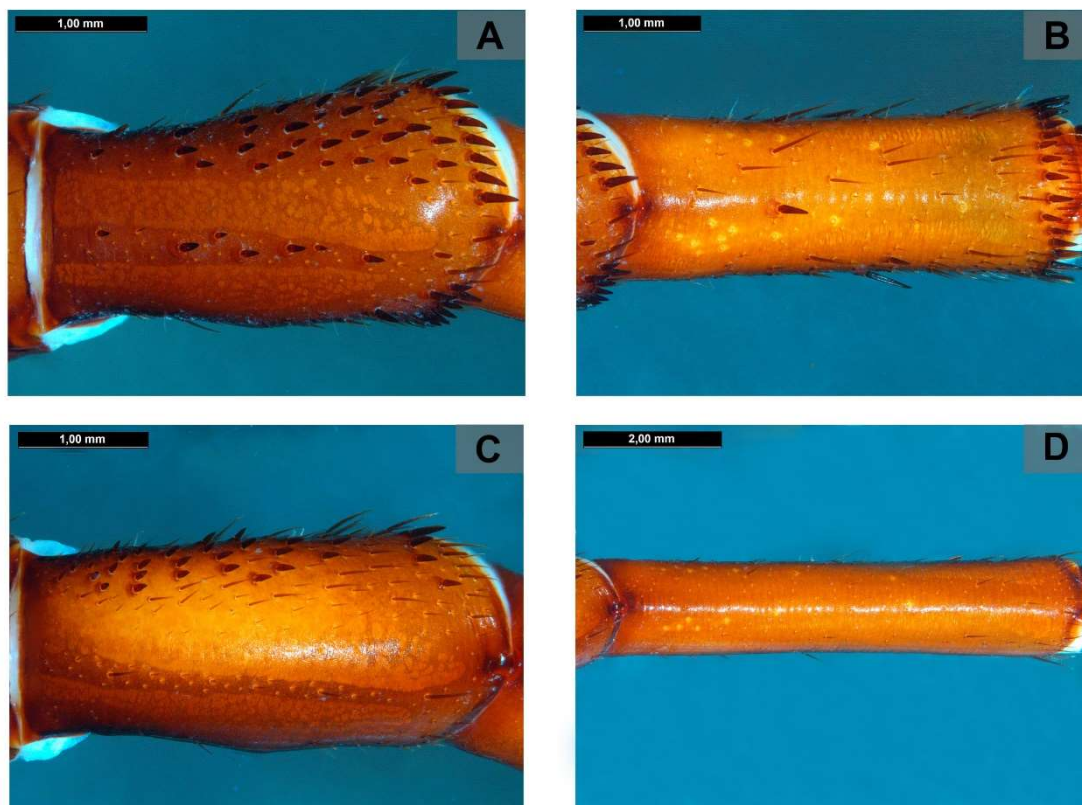


FIGURE 173 – *Actinopus cucutaensis* (Mello-Leitão, 1941), male: A–D INPA 3513: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

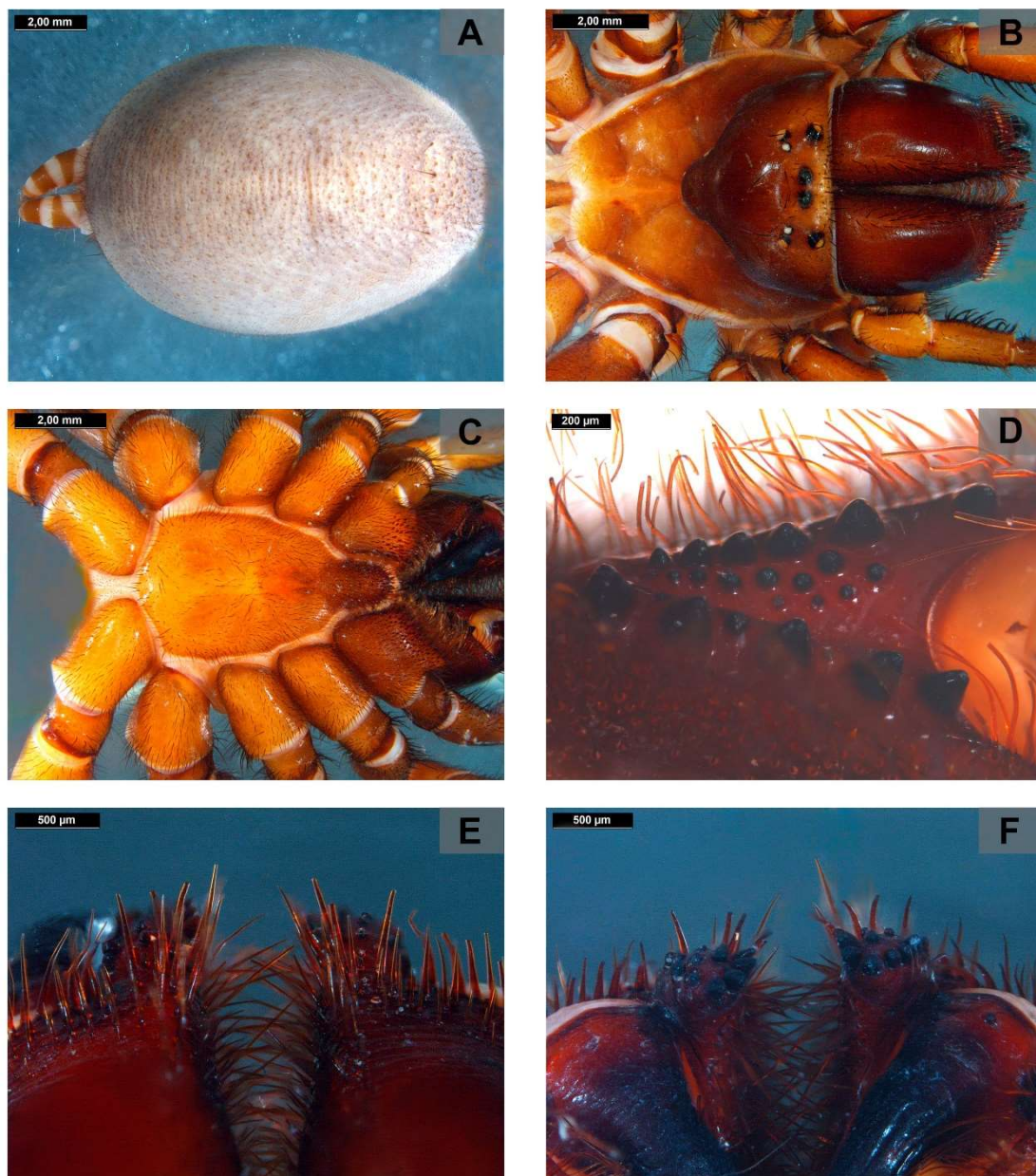
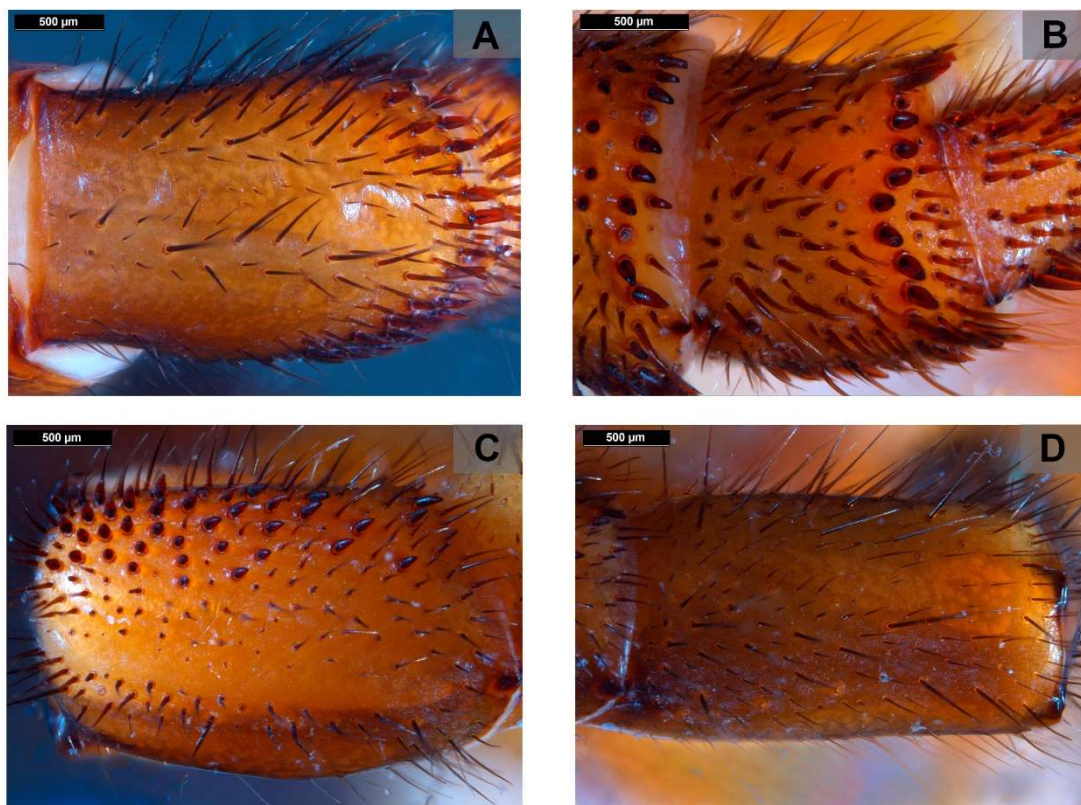


FIGURE 174 – *Actinopus cucutaensis* (Mello-Leitão, 1941), female: A–F AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.



FIGURES 175 – *Actinopus cucutaensis* (Mello-Leitão, 1941), female: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

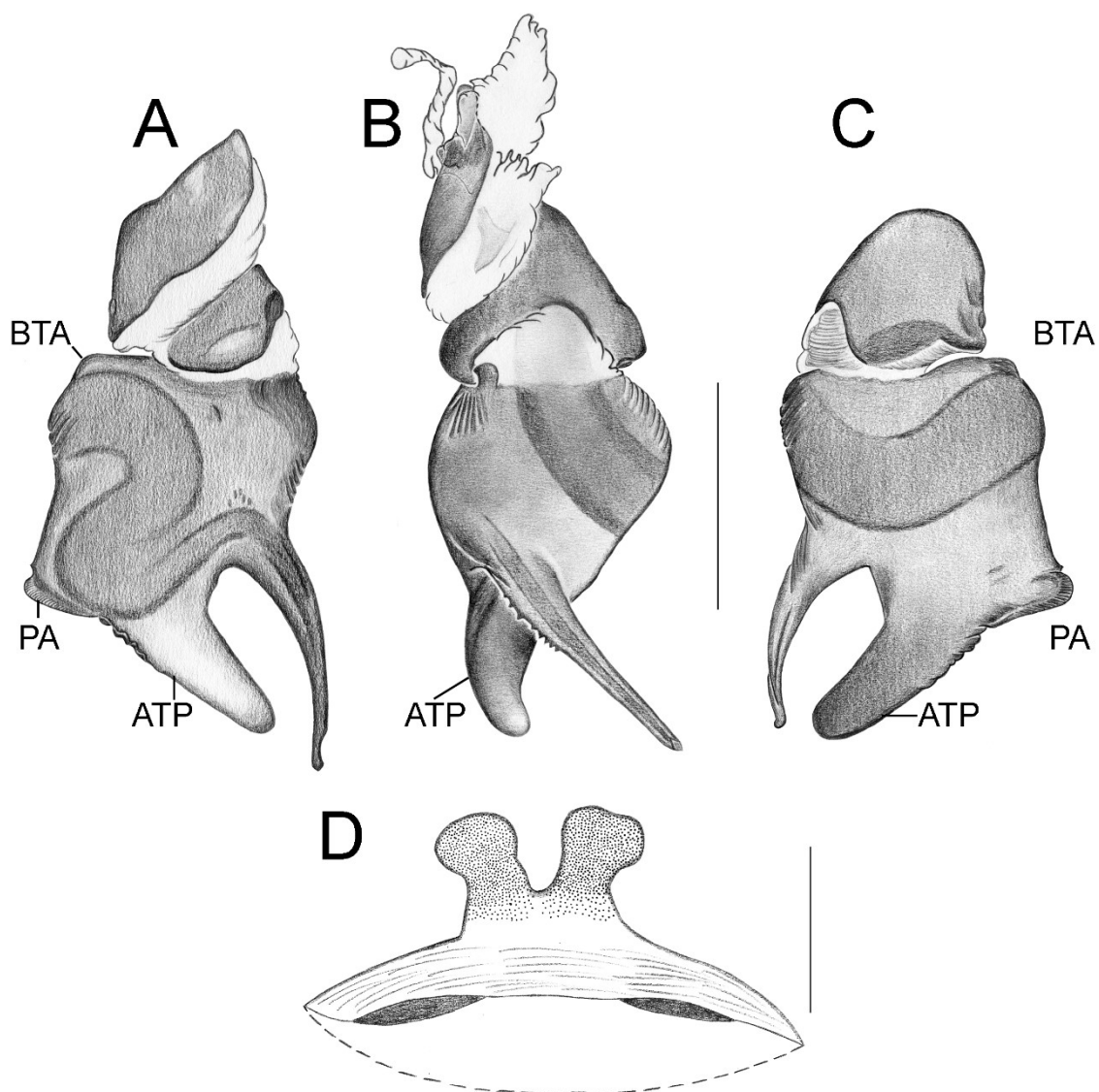


FIGURE 176 – *Actinopus cucutaensis* (Mello-Leitão, 1941), male: A–C MCN 17595: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; Setae: Serrated area. Female: D AMNH: D. Spermathecae, dorsal view. Scale line: Male: 1 mm, female: 0.5 mm.

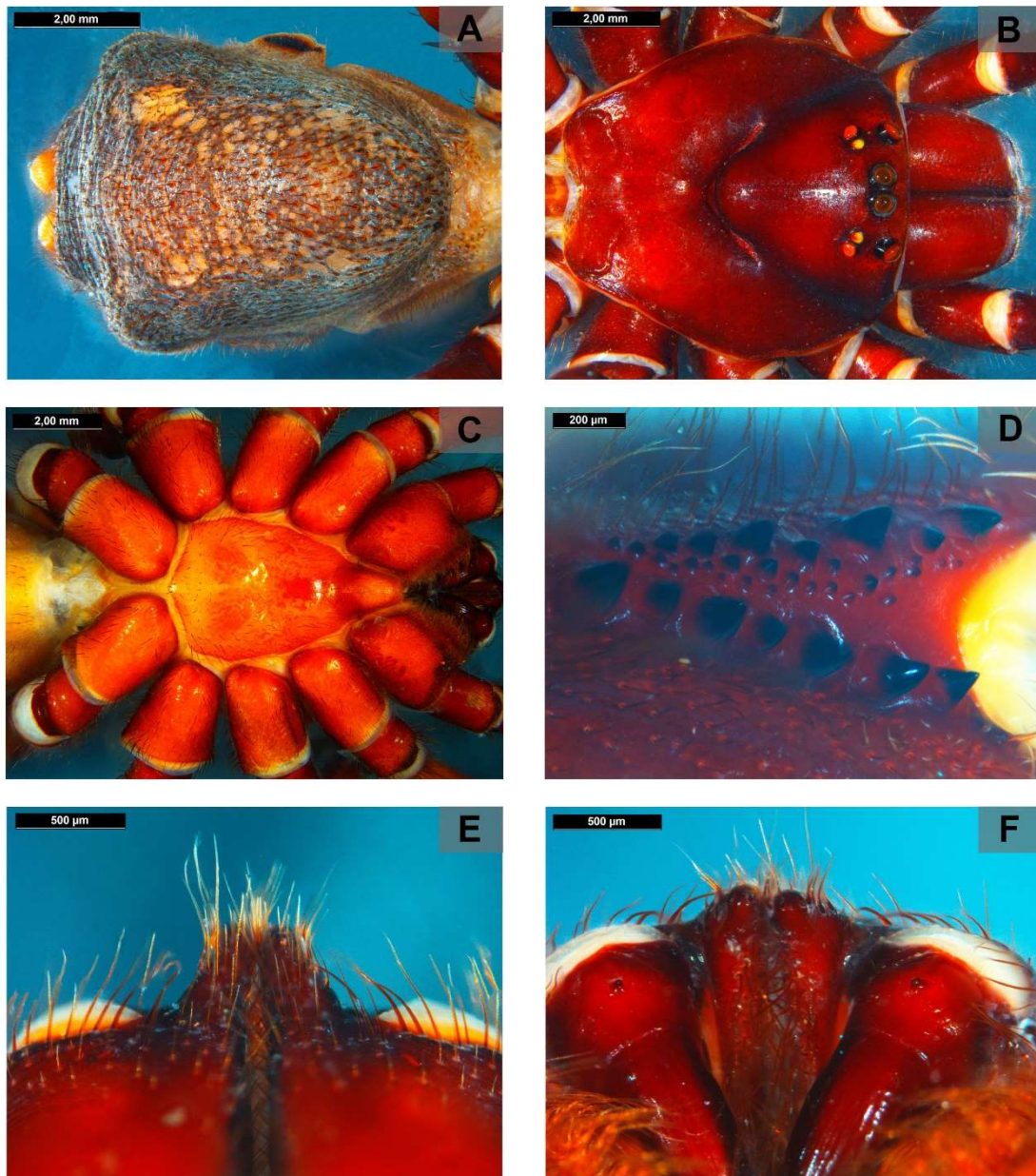


FIGURE 177 – *Actinopus robustus* (O. Pickard-Cambridge, 1892), male: A–F AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

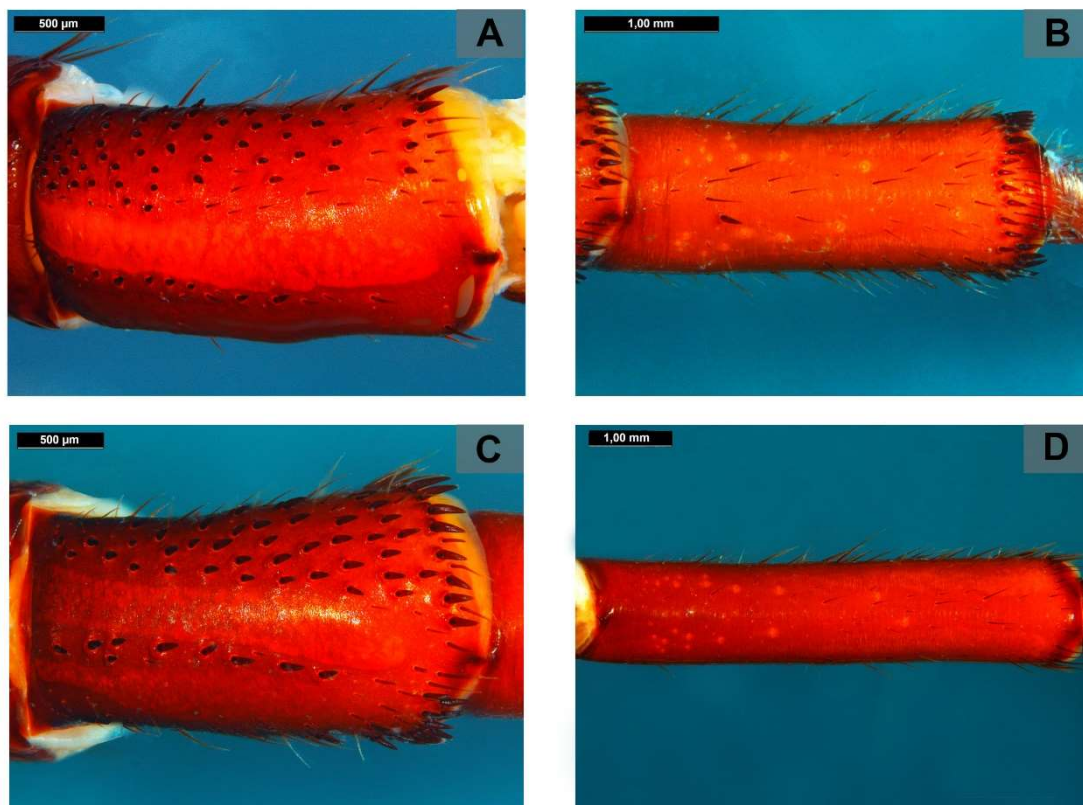


FIGURE 178 – *Actinopus robustus* (O. Pickard-Cambridge, 1892), male: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

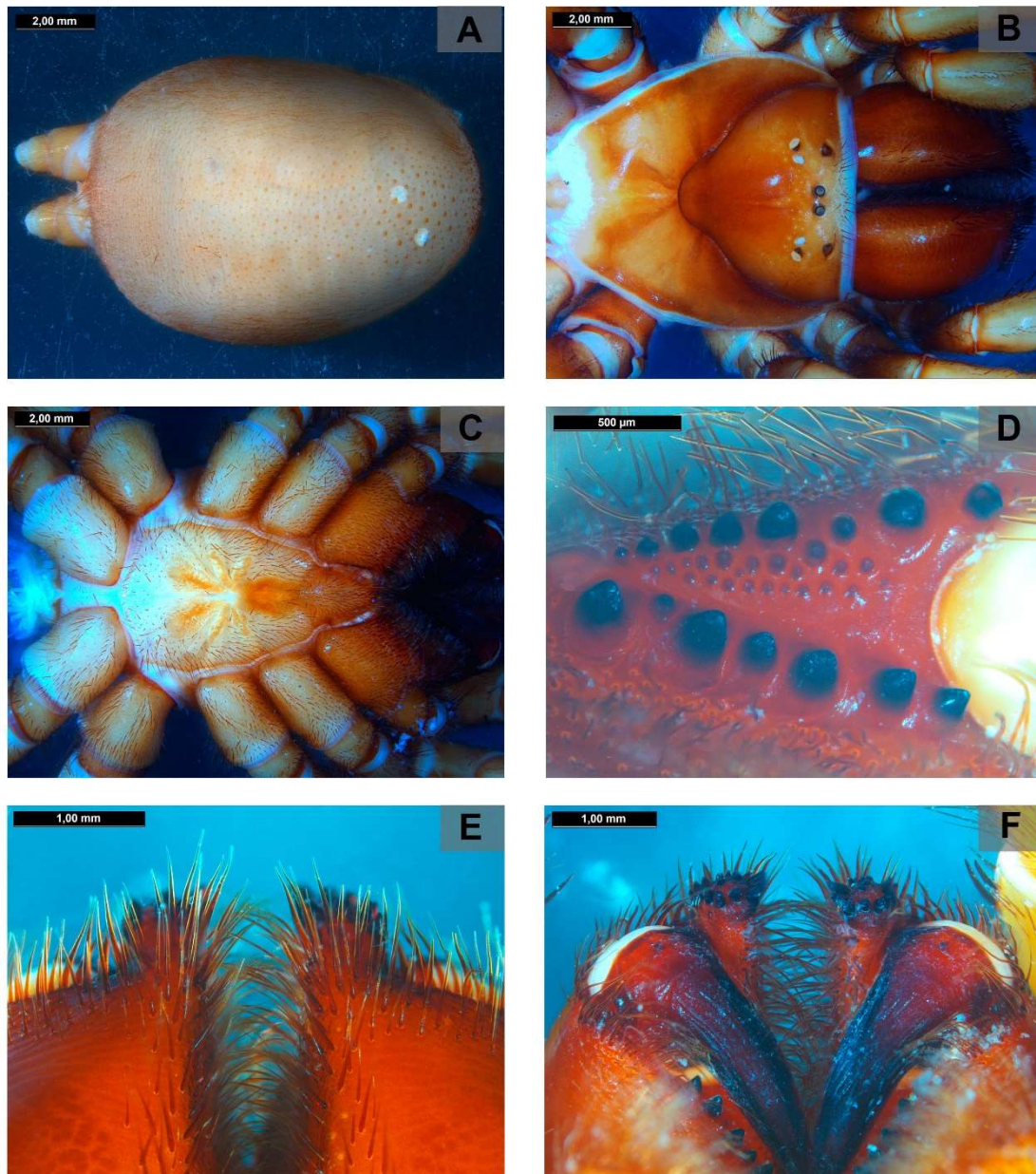


FIGURE 179 – *Actinopus robustus* (O. Pickard-Cambridge, 1892), syntype, female: A–F AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

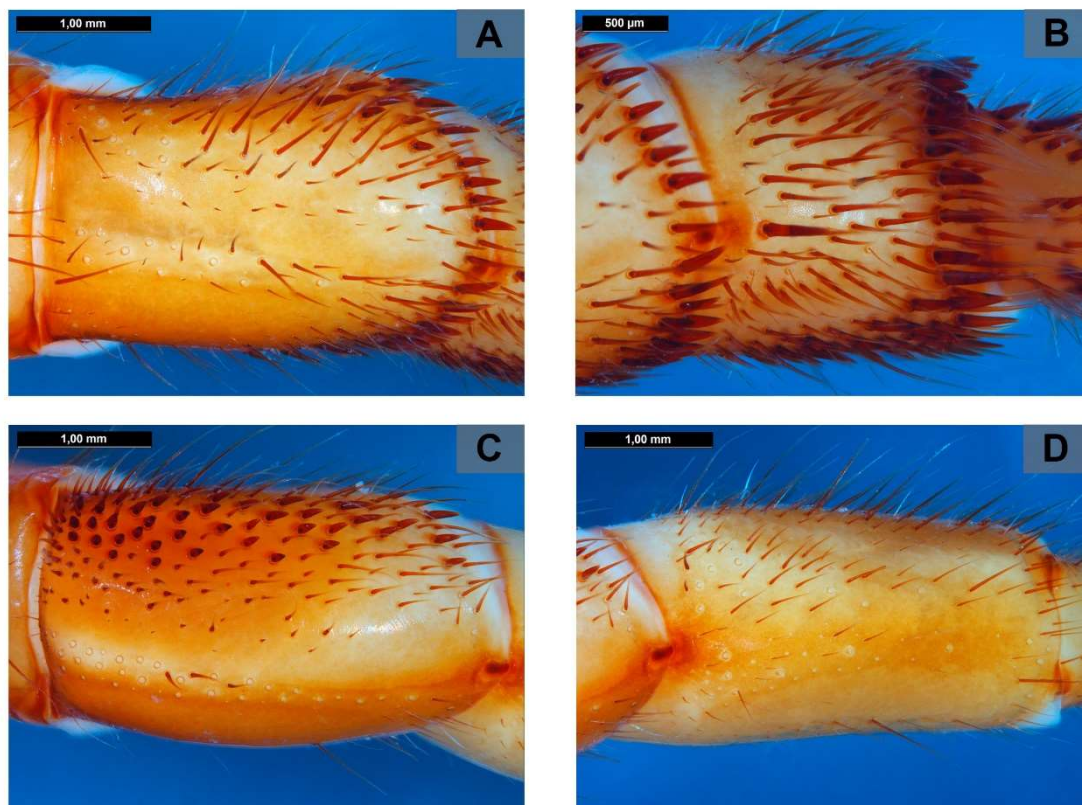


FIGURE 180 – *Actinopus robustus* (O. Pickard-Cambridge, 1892), syntype, female: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

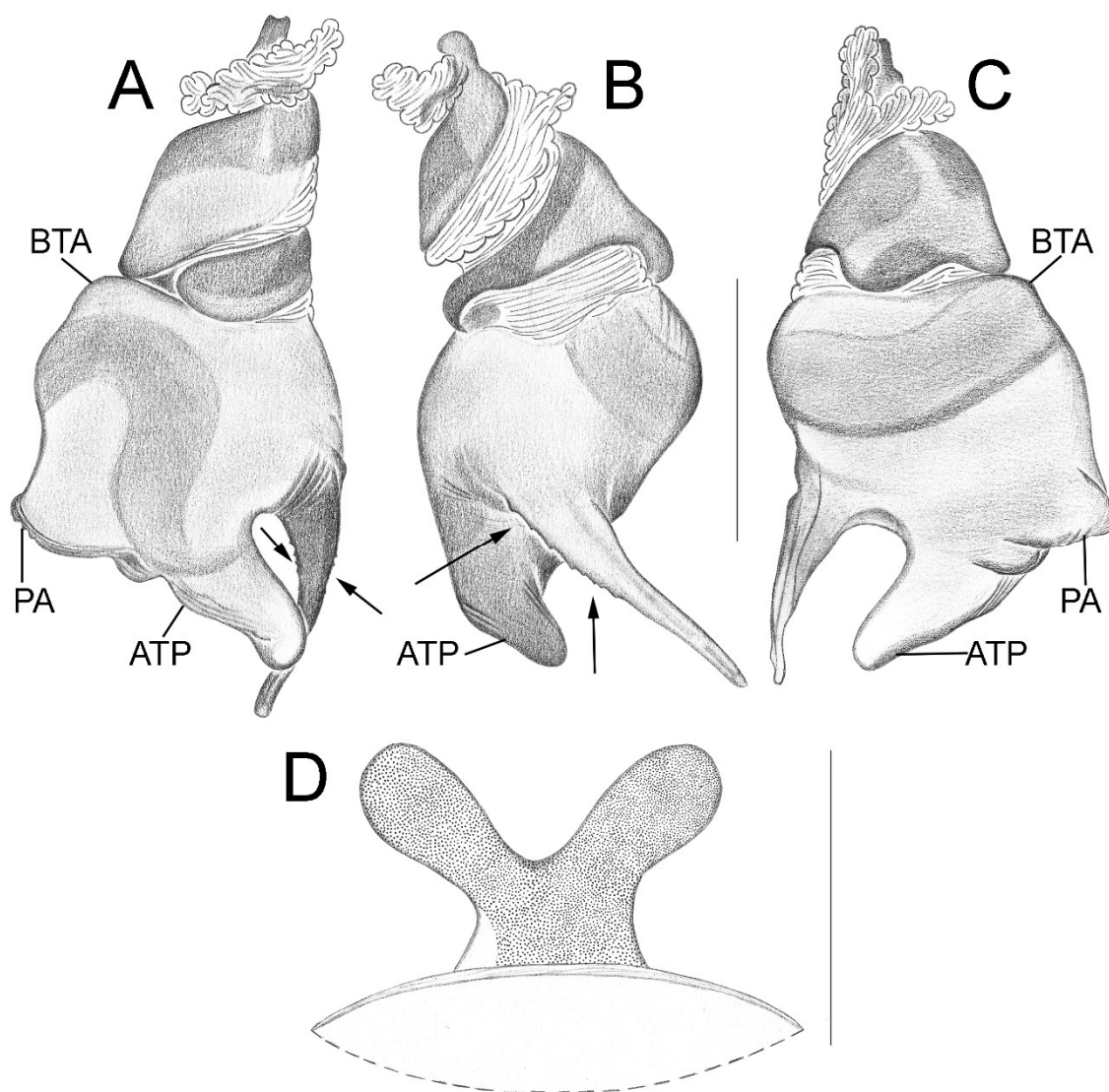


FIGURE 181 – *Actinopus robustus* (O. Pickard-Cambridge, 1892), male: A–C AMNH: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; ATP – Apical Tegular Process; Setae: Serrated area. Sintype, OUMNH, female: D AMNH: D. Spermathecae, dorsal view. Scale line: 1 mm.

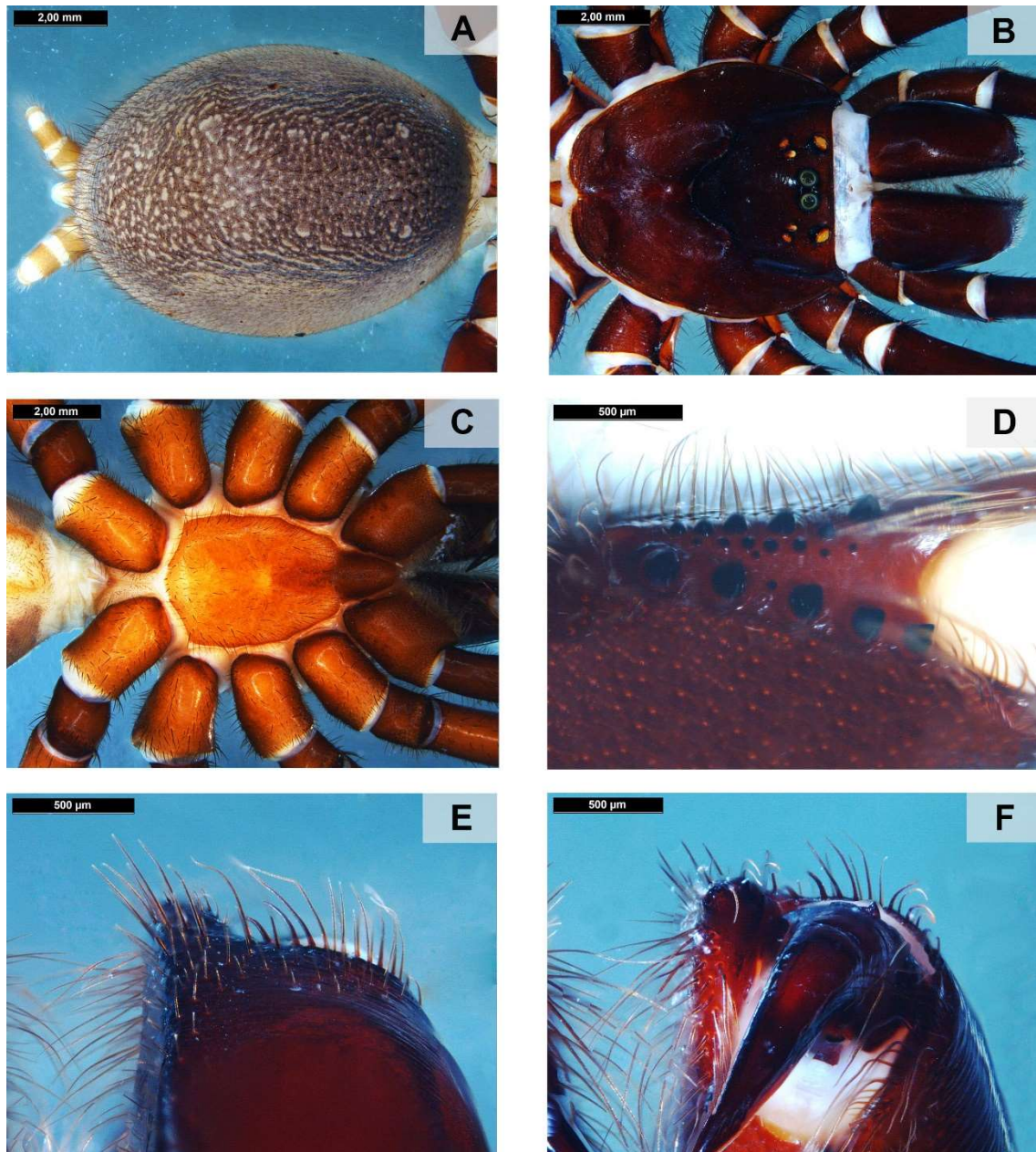


FIGURE 182 – *Actinopus lomalinda* n. sp., holotype, male: A–F CASENT 9046026: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

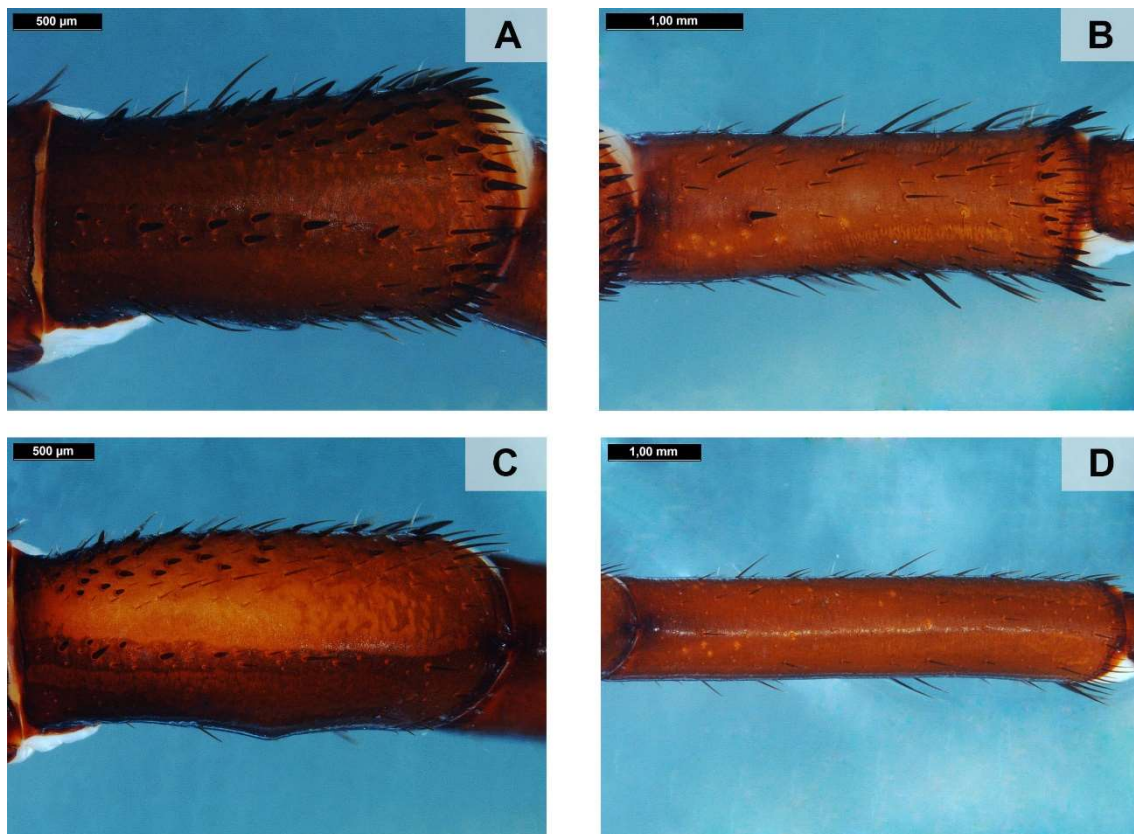


FIGURE 183 – *Actinopus lomalinda* n. sp., holotype, male: A–D CASENT 9046026: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

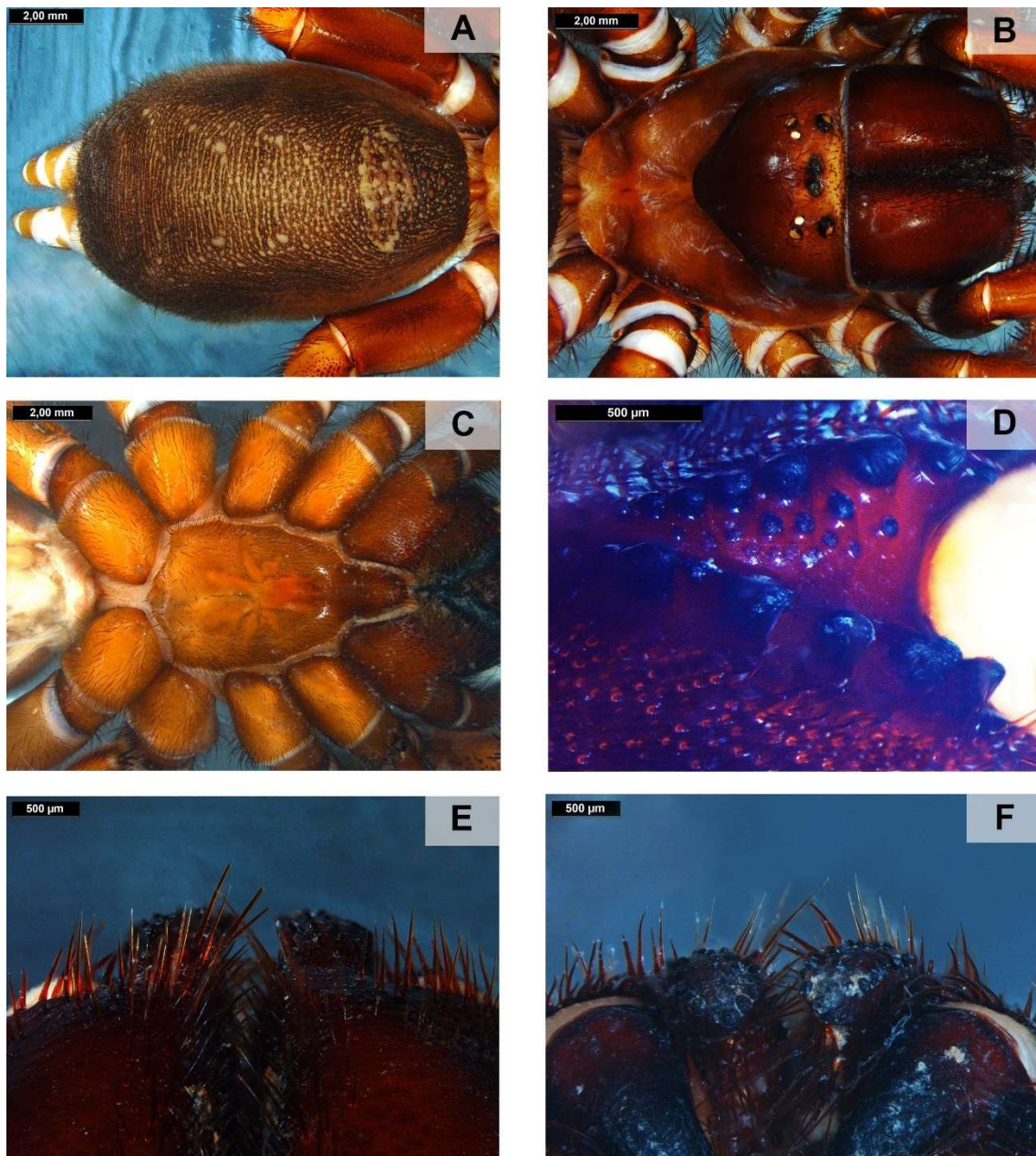


FIGURE 184 – *Actinopus lomalinda* n. sp., paratype, female: A–F CASENT 9020953: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

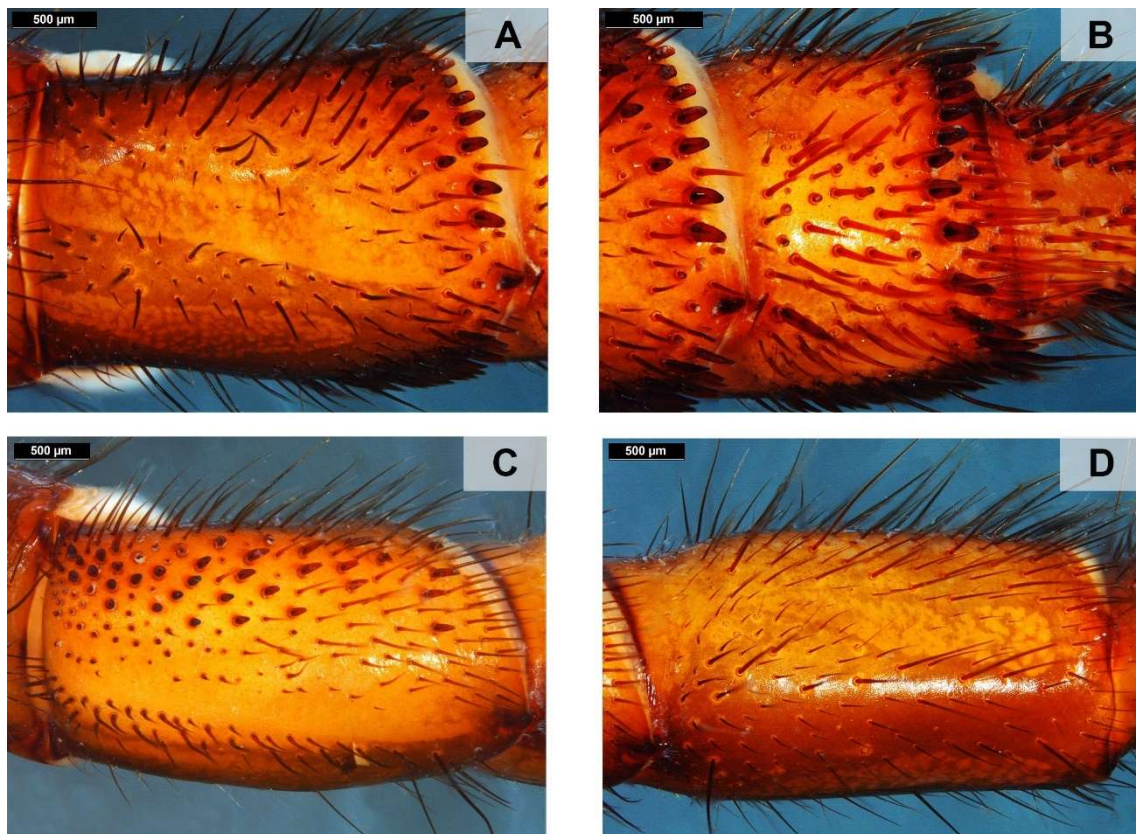


FIGURE 185 – *Actinopus lomalinda* n. sp., paratype, female: A–D CASENT 9020953: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

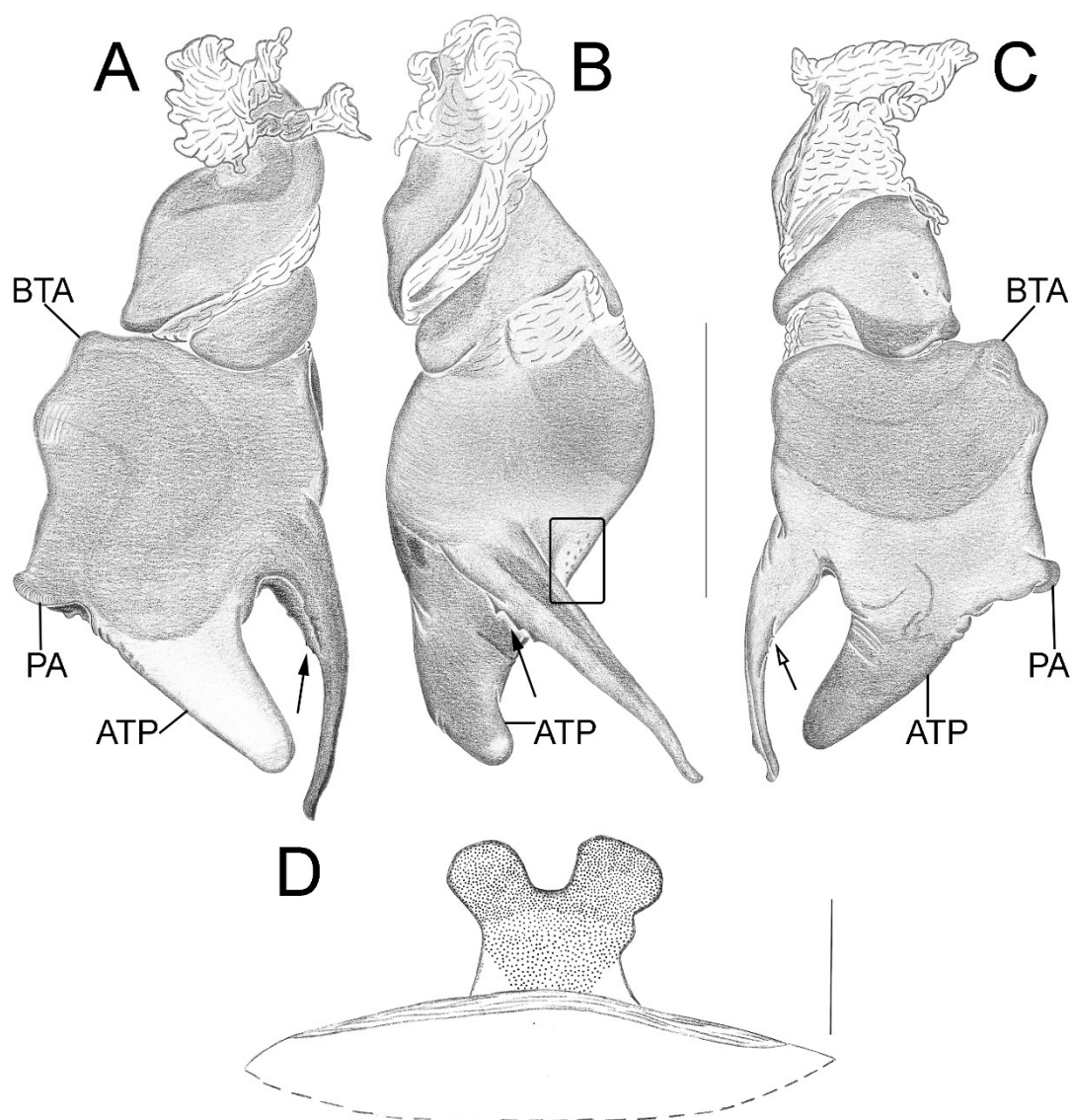


FIGURE 186 – *Actinopus lomalinda* n. sp., male: A–C CASENT 9046026: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **ATP** – Apical Tegular Process; Setae: Serrated Area; Retangle: Cusps on retrolateral apophysis. Paratype, female: D. CASENT 9020953: D. Spermathecae, dorsal view. Scale line: Male: 1 mm, female: 0.5 mm.

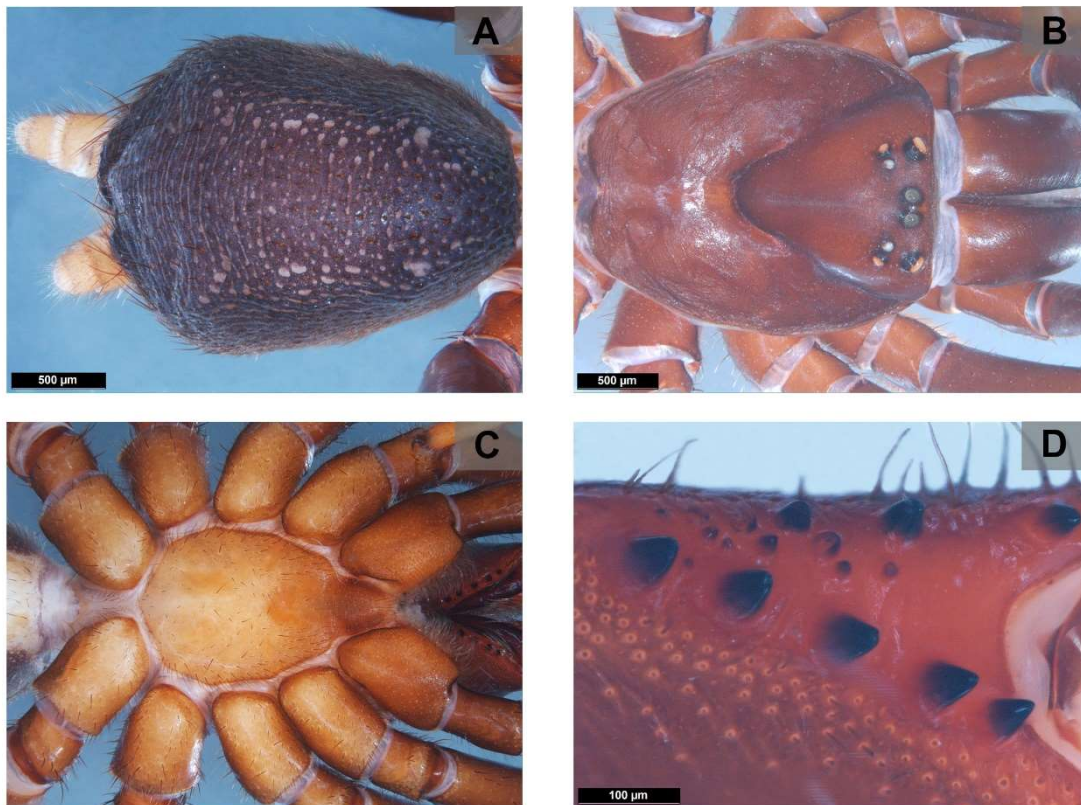


FIGURE 187 – *Actinopus palmar* n. sp., male: A–D MACN-Ar 19826: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral.

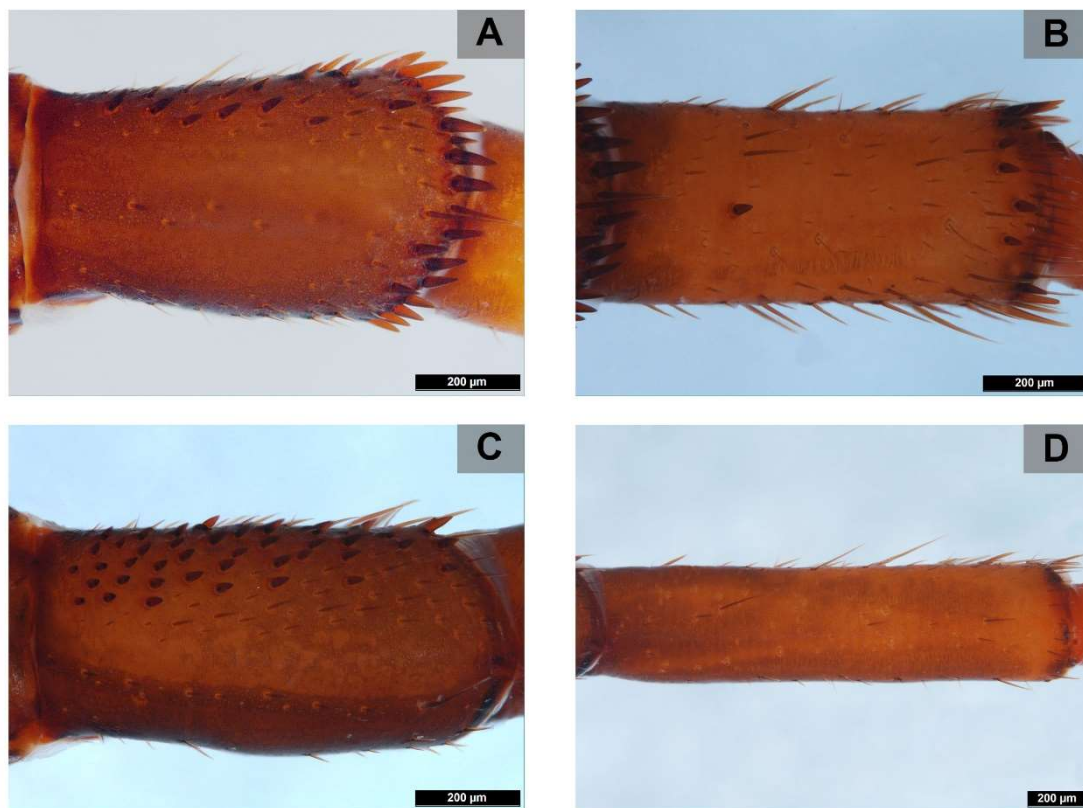


FIGURE 188 – *Actinopus palmar* n. sp., male: 815–818 MACN-Ar 19826: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

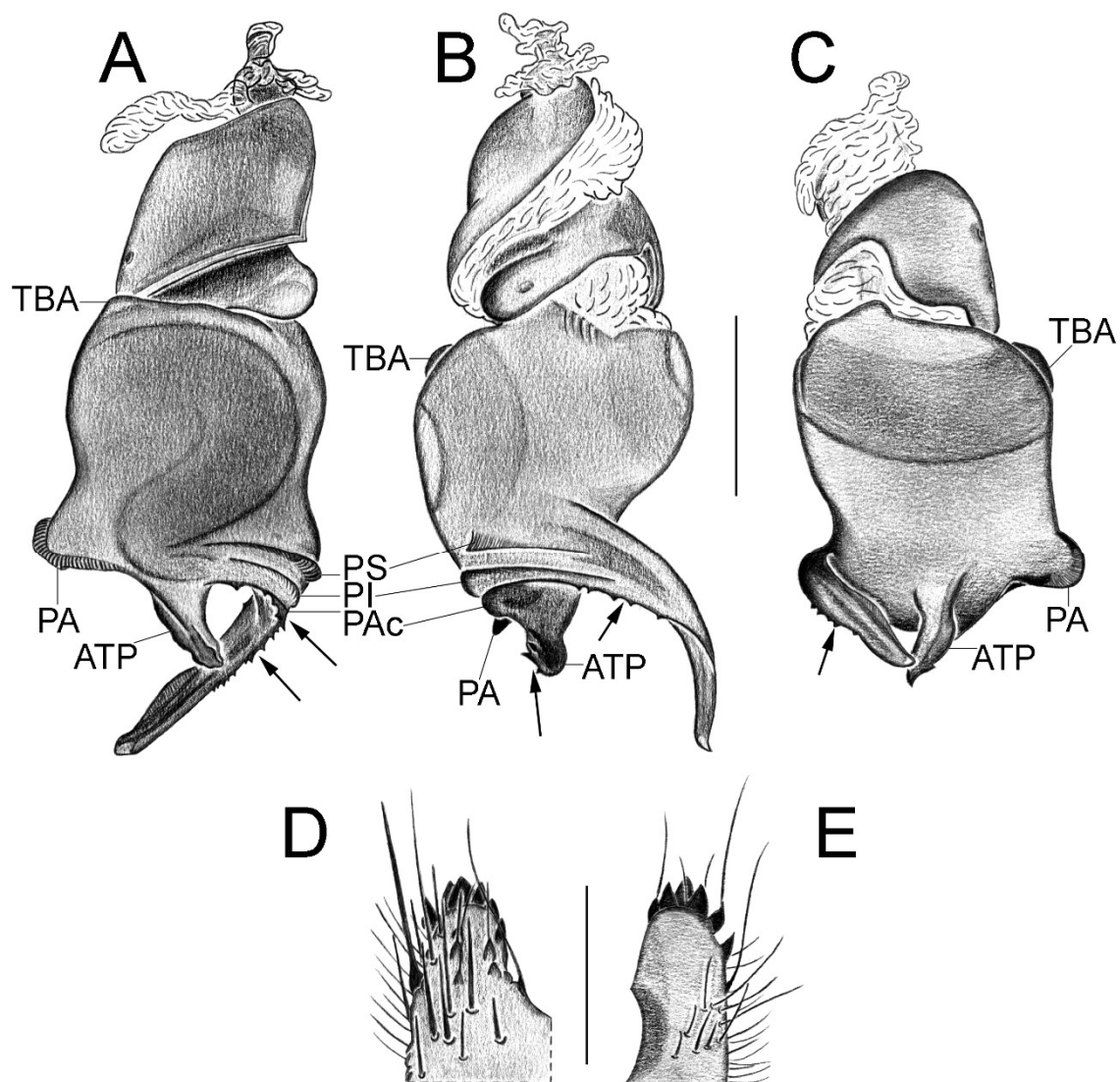


FIGURE 189 – *Actinopus palmar* n. sp., male: A–E MACN 19826: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **TBA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. E. Rastellum, dorsal; F. Rastellum, ventral. Scale line: 0.5 mm.

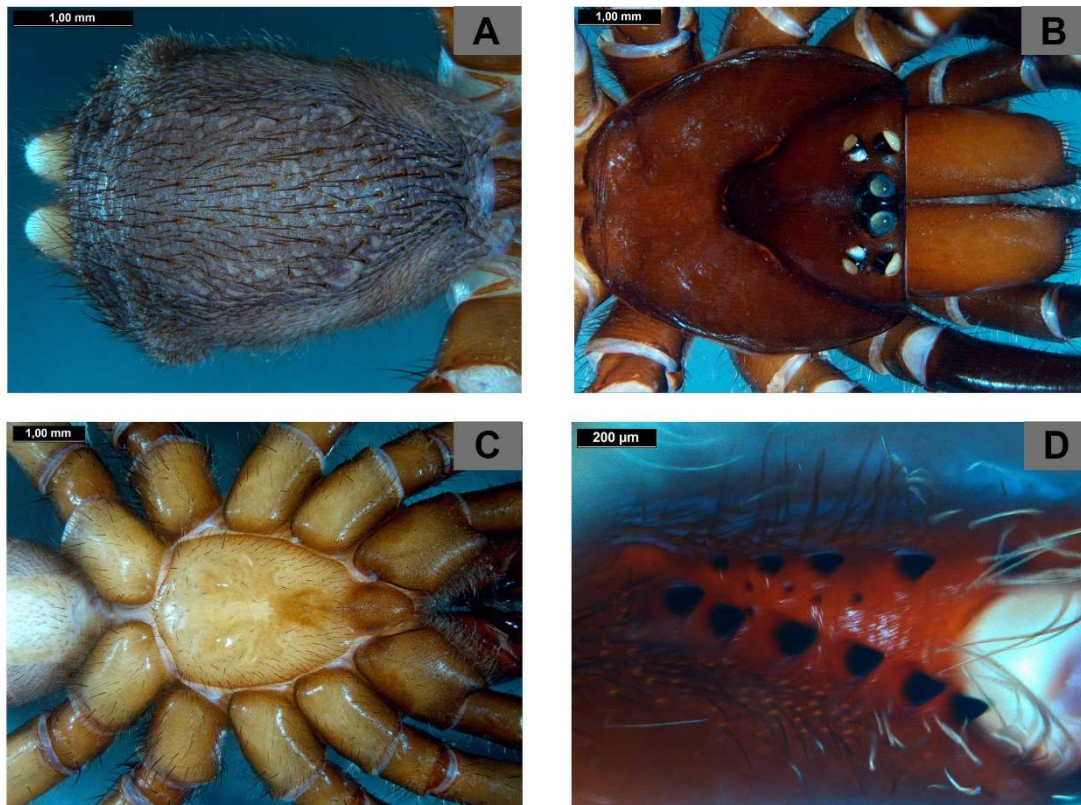


FIGURE 190 – *Actinopus guajara* n. sp., male: A–D IBSP 114463: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral.

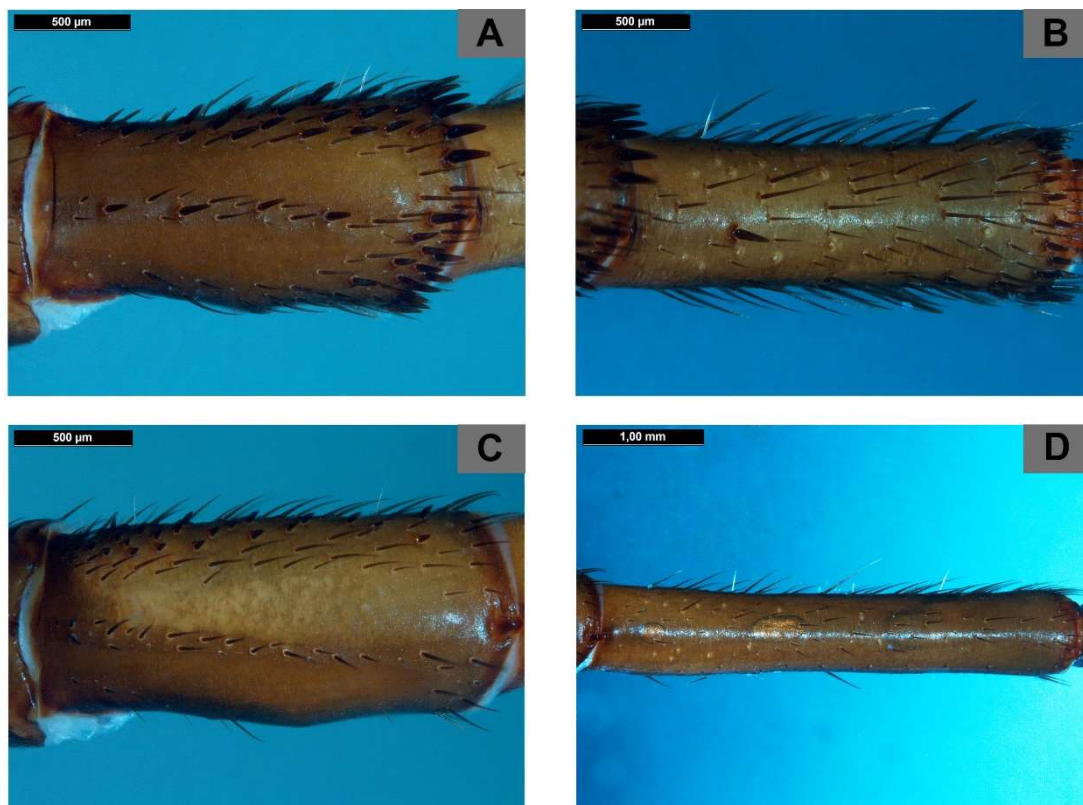


FIGURE 191 – *Actinopus guajara* n. sp., male: A–D IBSP 114463: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

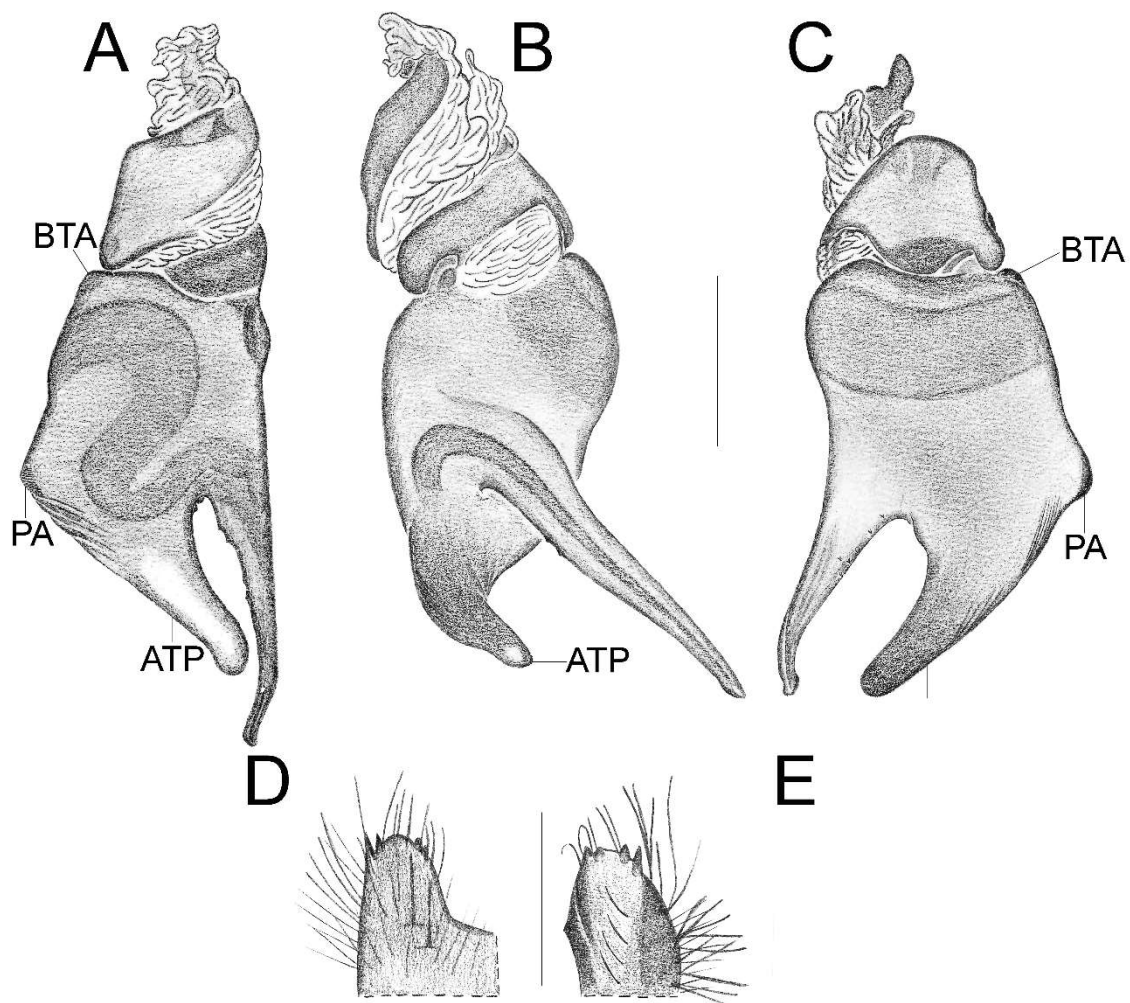


FIGURE 192 – *Actinopus guajara* n. sp., male: A–C IBSP 114463: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **ATP** – Apical Tegular Process. D. Rastellum, dorsal; E. Rastellum, ventral. Scale line: 0.5 mm.

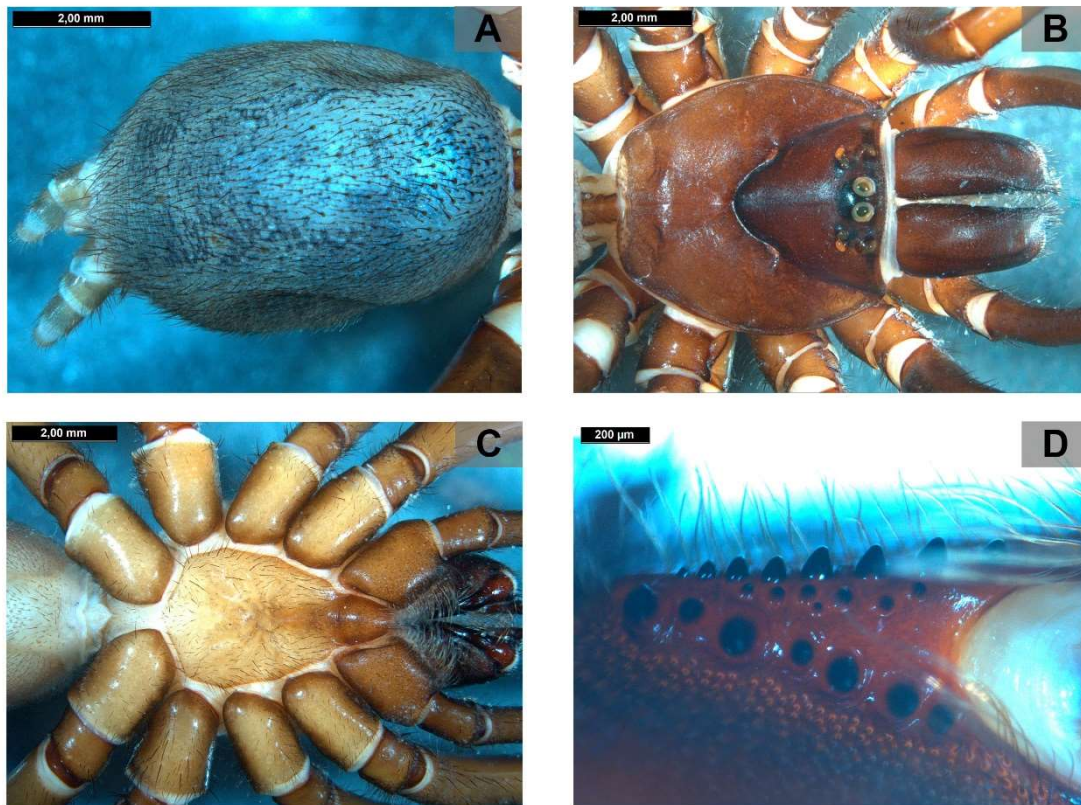


FIGURE 193 – *Actinopus concinnus* n. sp., female: A–D AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral.

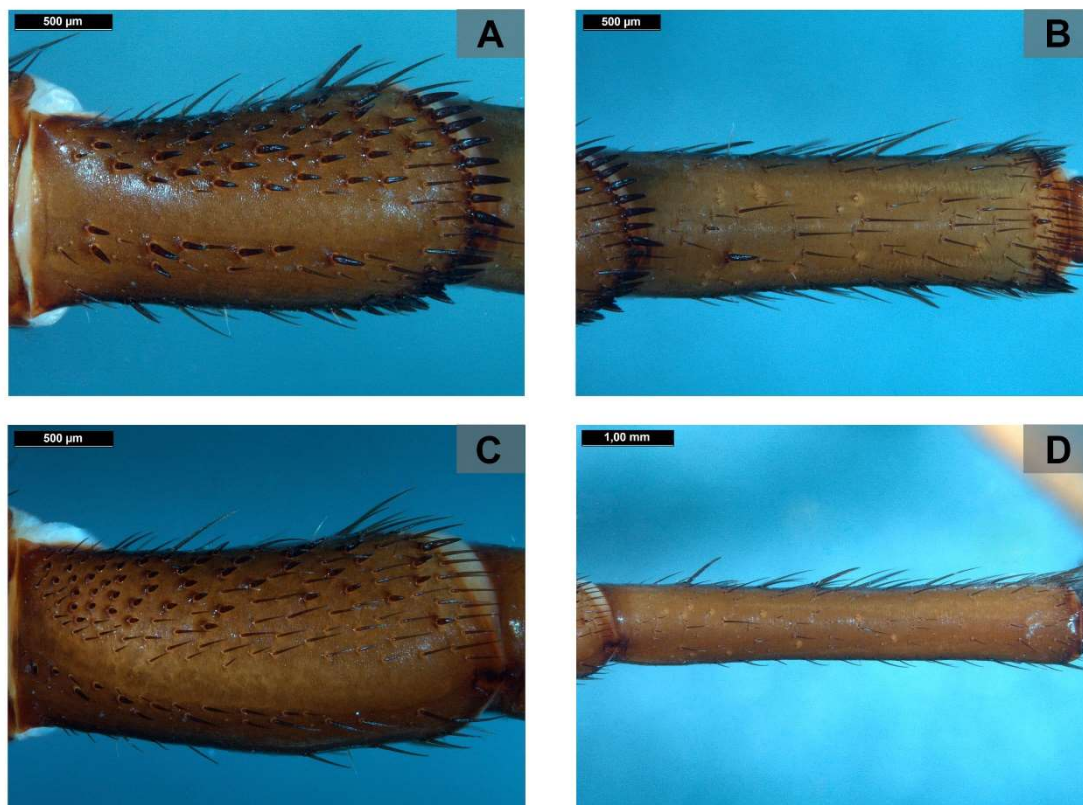


FIGURE 194 – *Actinopus concinnus* n. sp., female: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

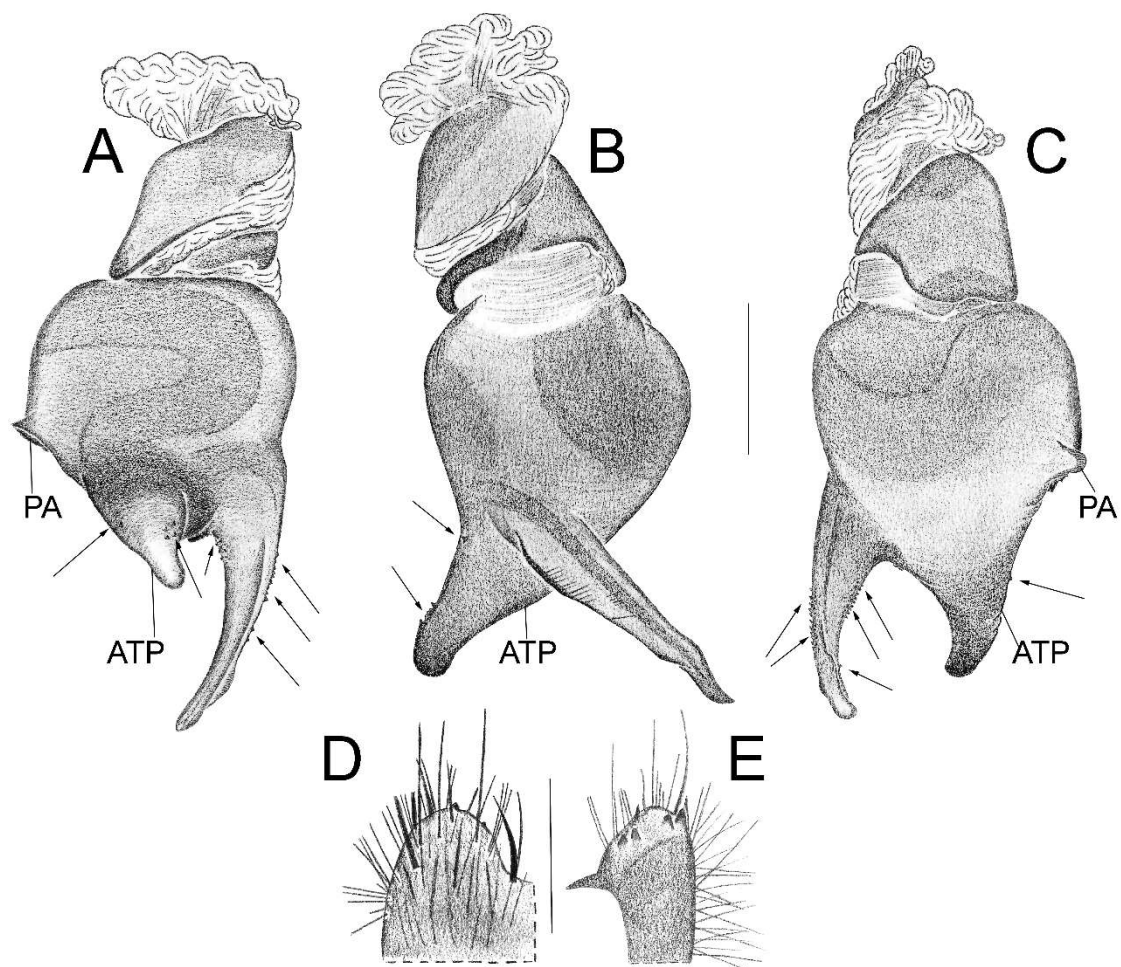


FIGURE 195 – *Actinopus concinnus* n. sp., male: A–E AMNH: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **ATP** – Apical Tegular Process; Arrows: Serrated area. D. Rastellum, dorsal; E. Rastellum, ventral. Scale line: 0.5 mm.

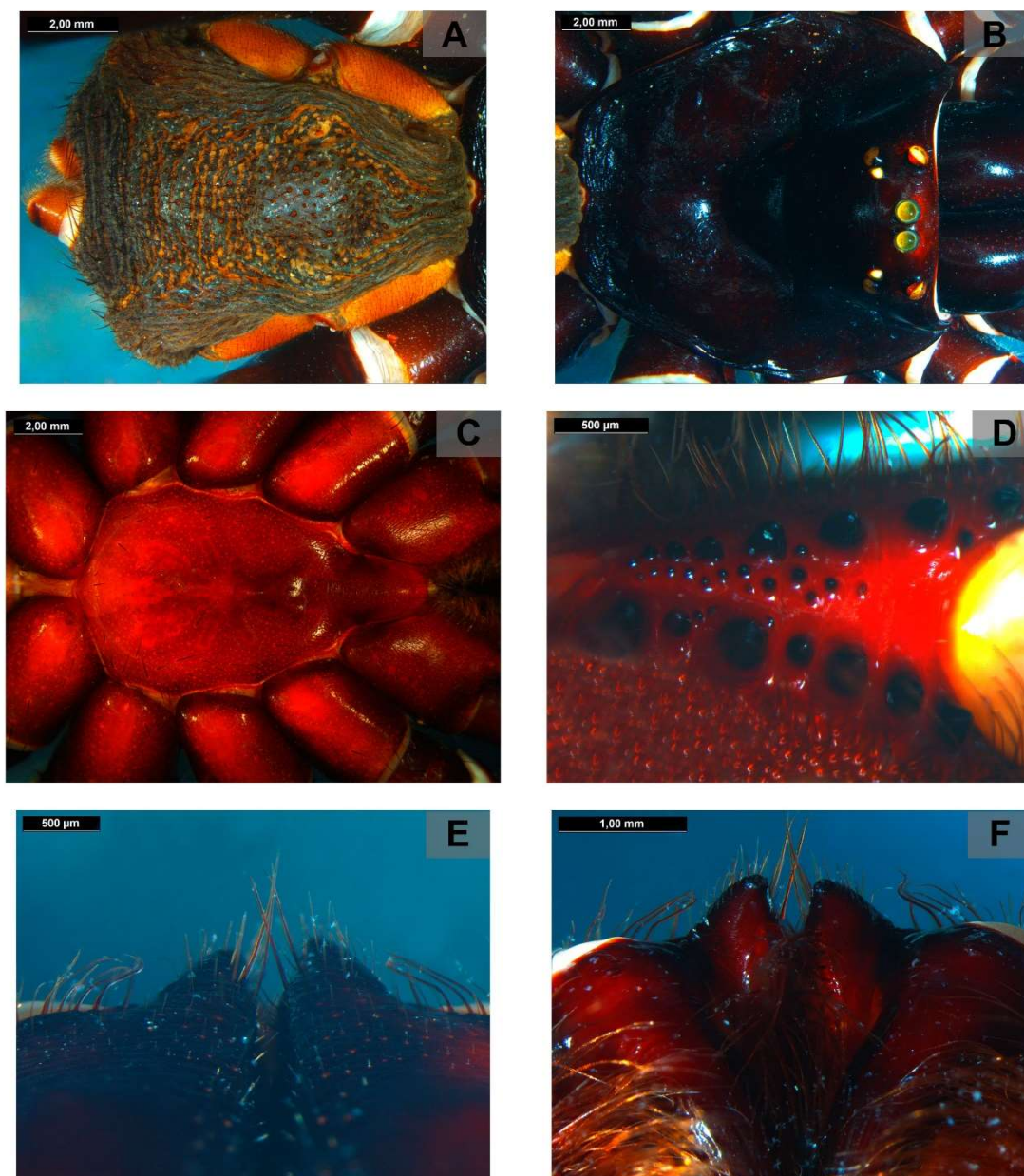


FIGURE 196 – *Actinopus jamari* n. sp., male: A–F IBSP: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

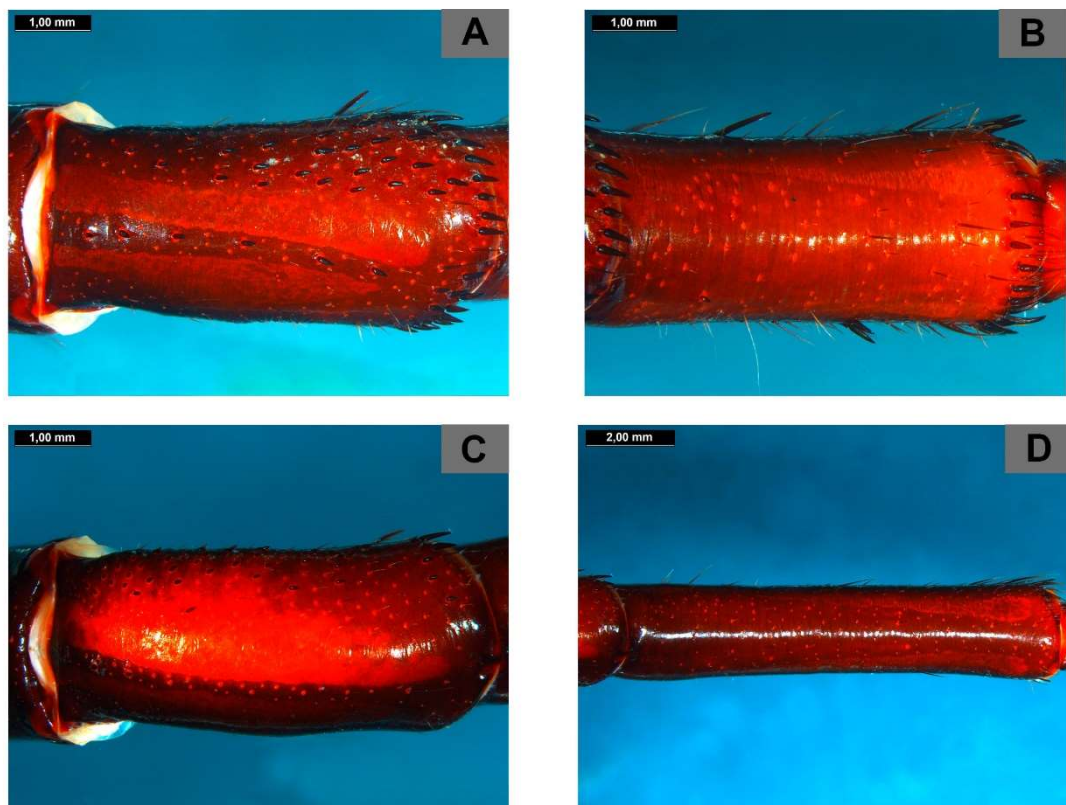


FIGURE 197 – *Actinopus jamari* n. sp., male: A–D IBSP: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

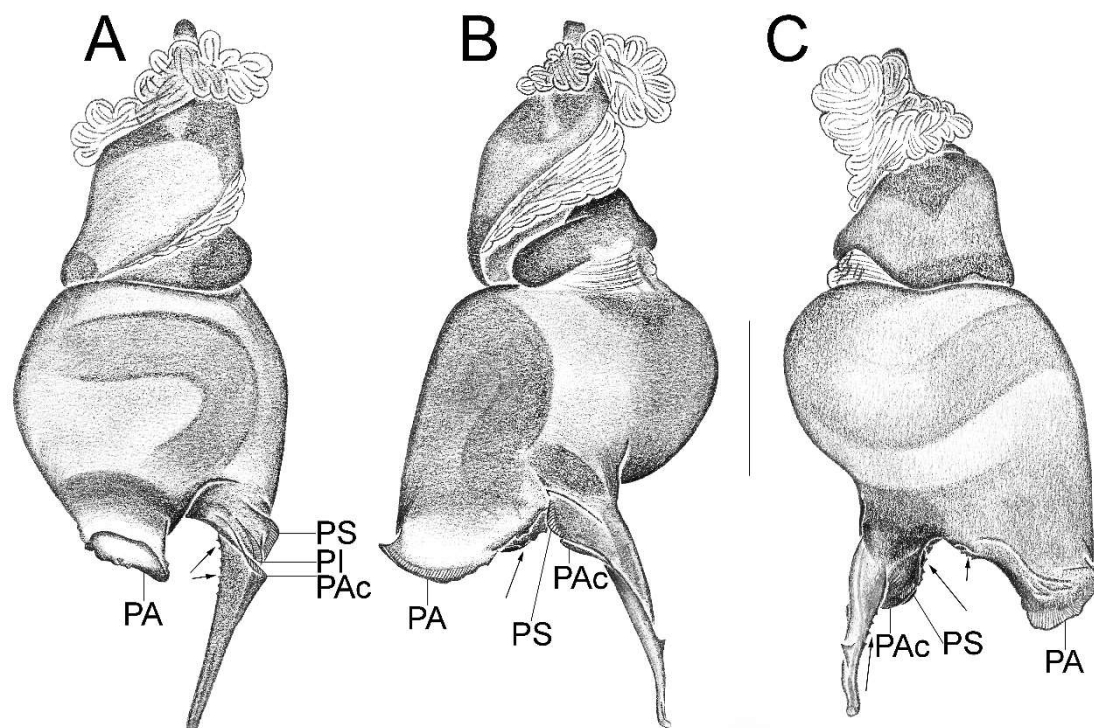


FIGURE 198 – *Actinopus jamari* n. sp., male: A–C IBSP: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 1 mm.

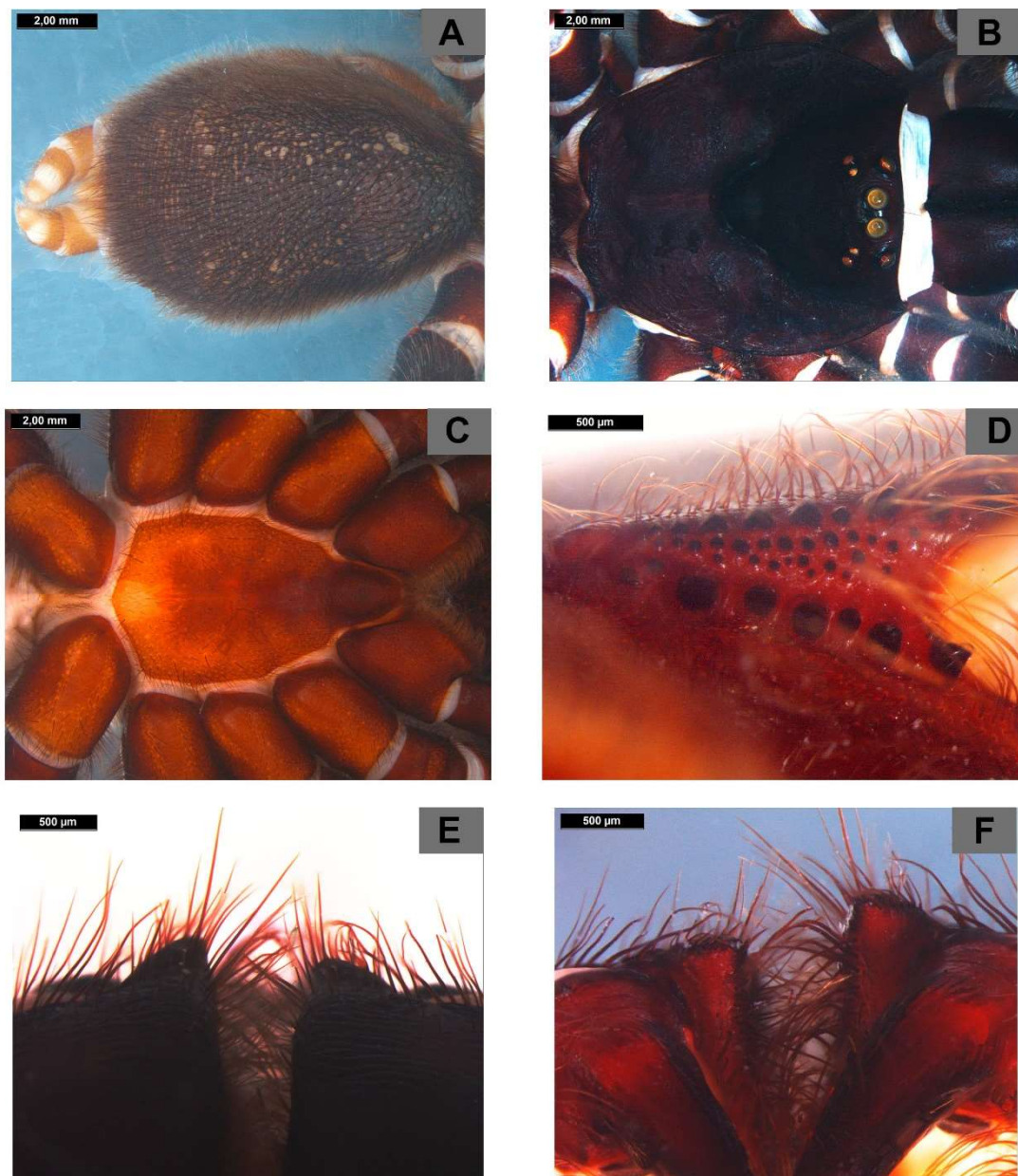


FIGURE 199 – *Actinopus apiacas* n. sp., male: A–F IBSP 110503: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

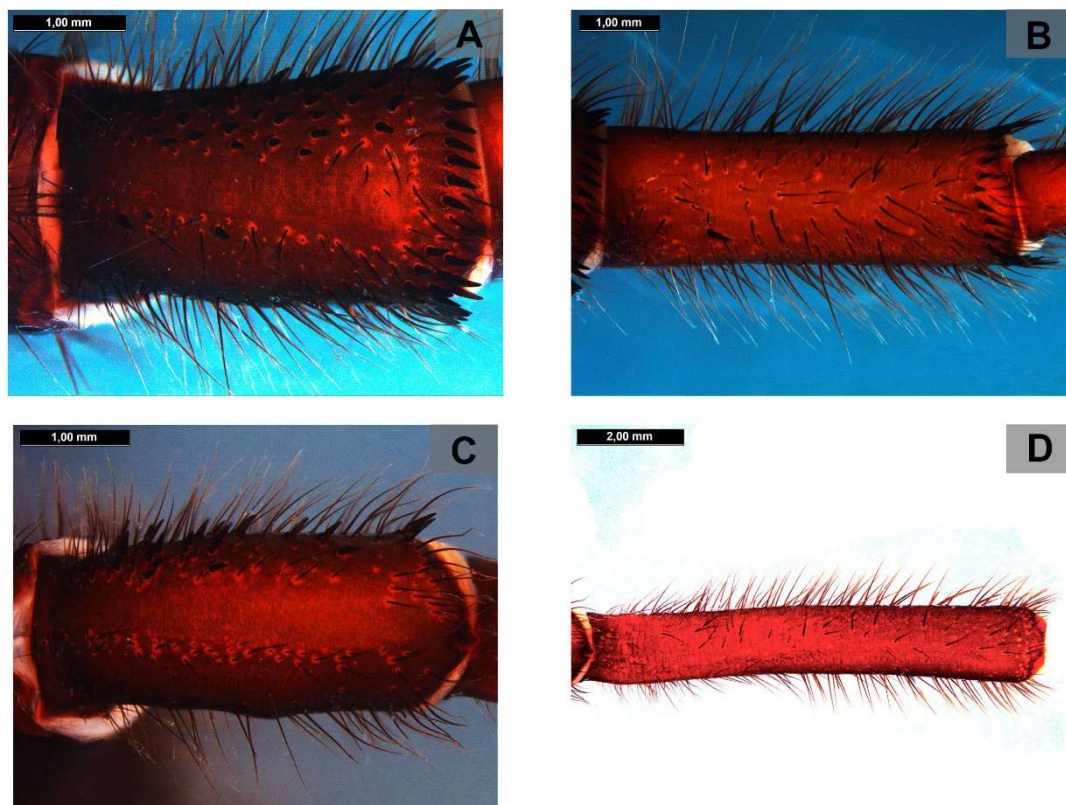


FIGURE 200 – *Actinopus apiacas* n. sp., male: A–D IBSP 110503: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

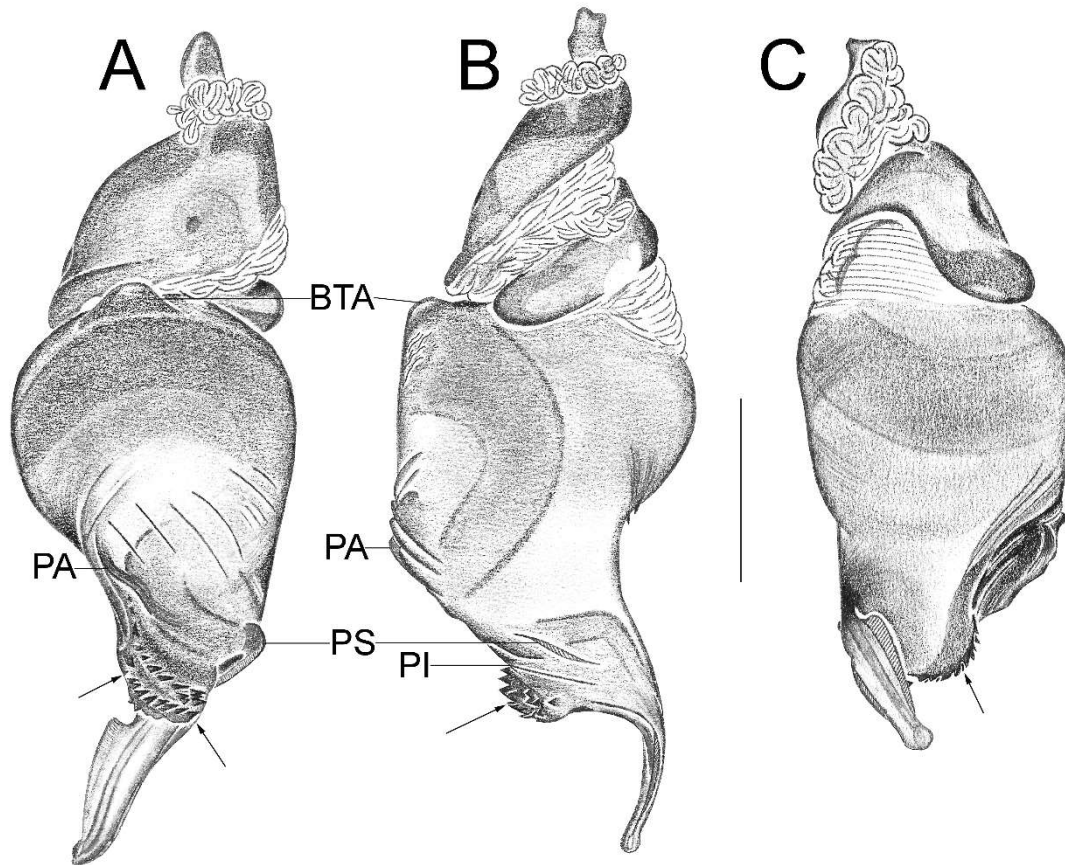


FIGURE 201 – *Actinopus apiacas* n. sp., male: A–C MACN 1105003: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel; Arrows: Serrated area. Scale line: 0.5 mm.

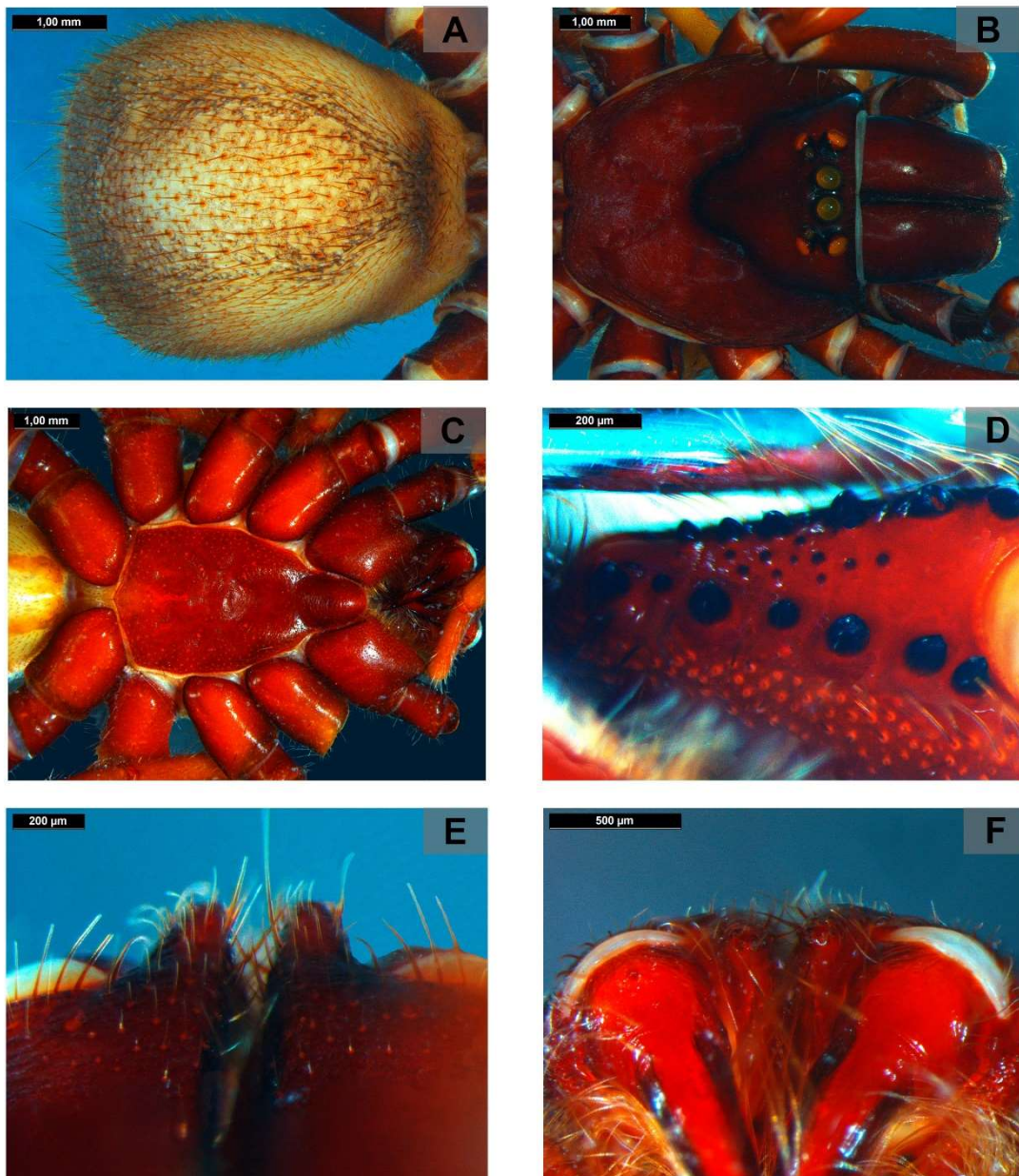


FIGURE 202 – *Actinopus panguana* n. sp., male: A–F IBSP 113689: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

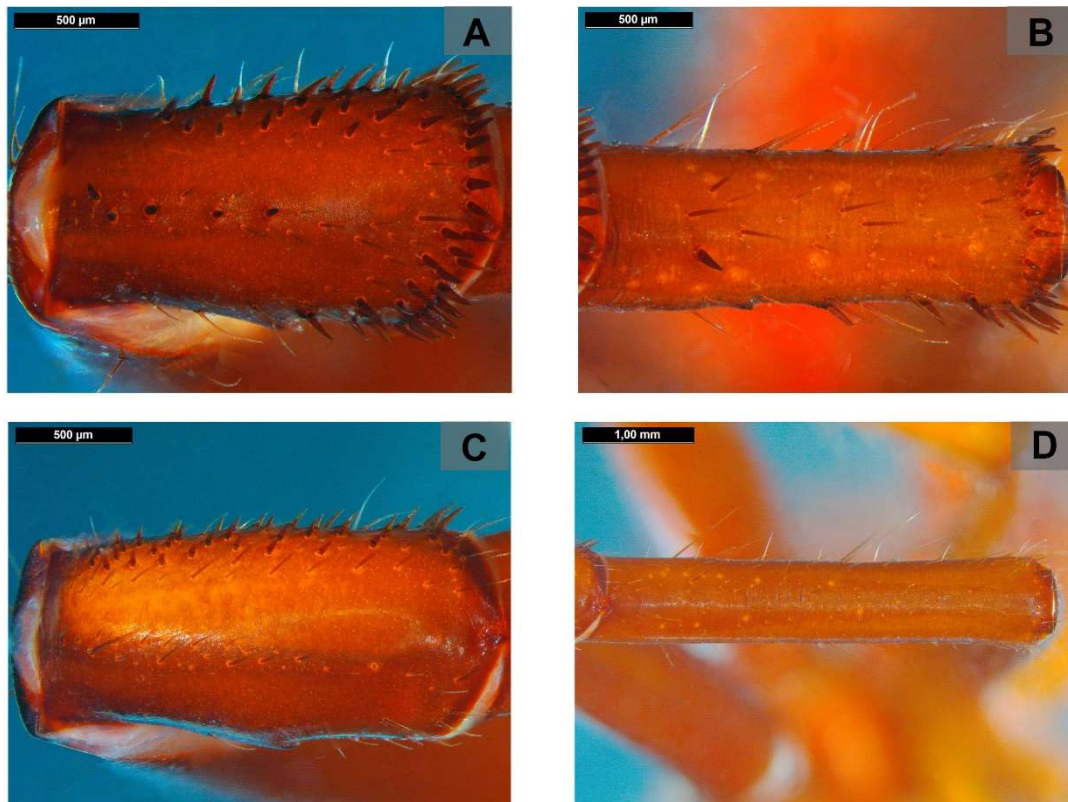


FIGURE 203 – *Actinopus panguana* n. sp., male: A–D IBSP 113689: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

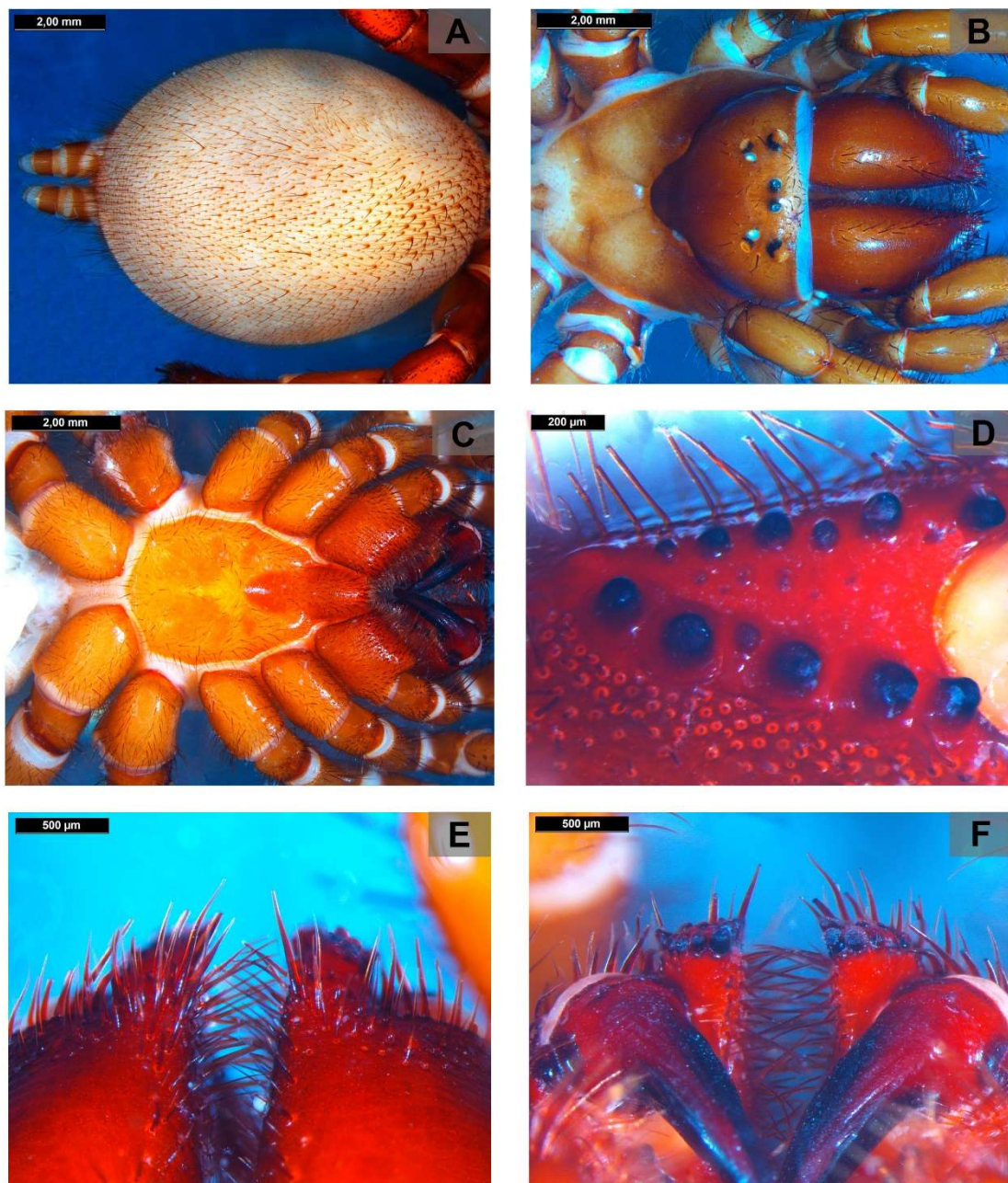


FIGURE 204 – *Actinopus panguana* n. sp., female: A–F AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

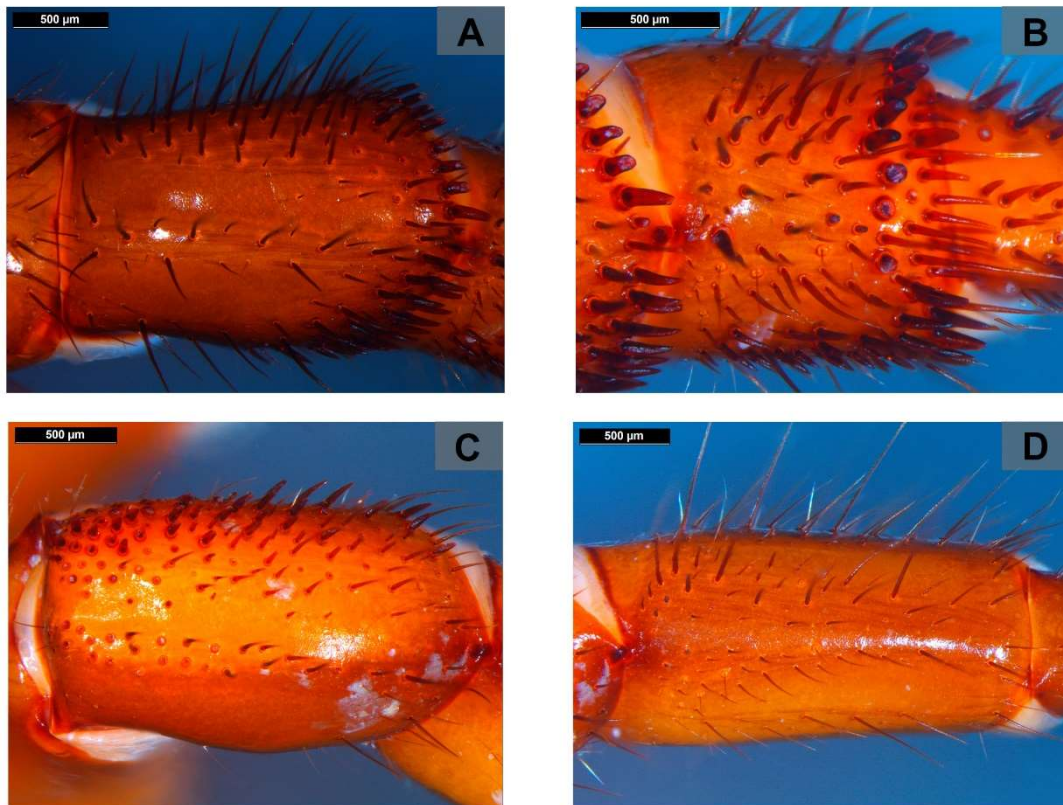


FIGURE 205 – *Actinopus panguana* n. sp., female: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

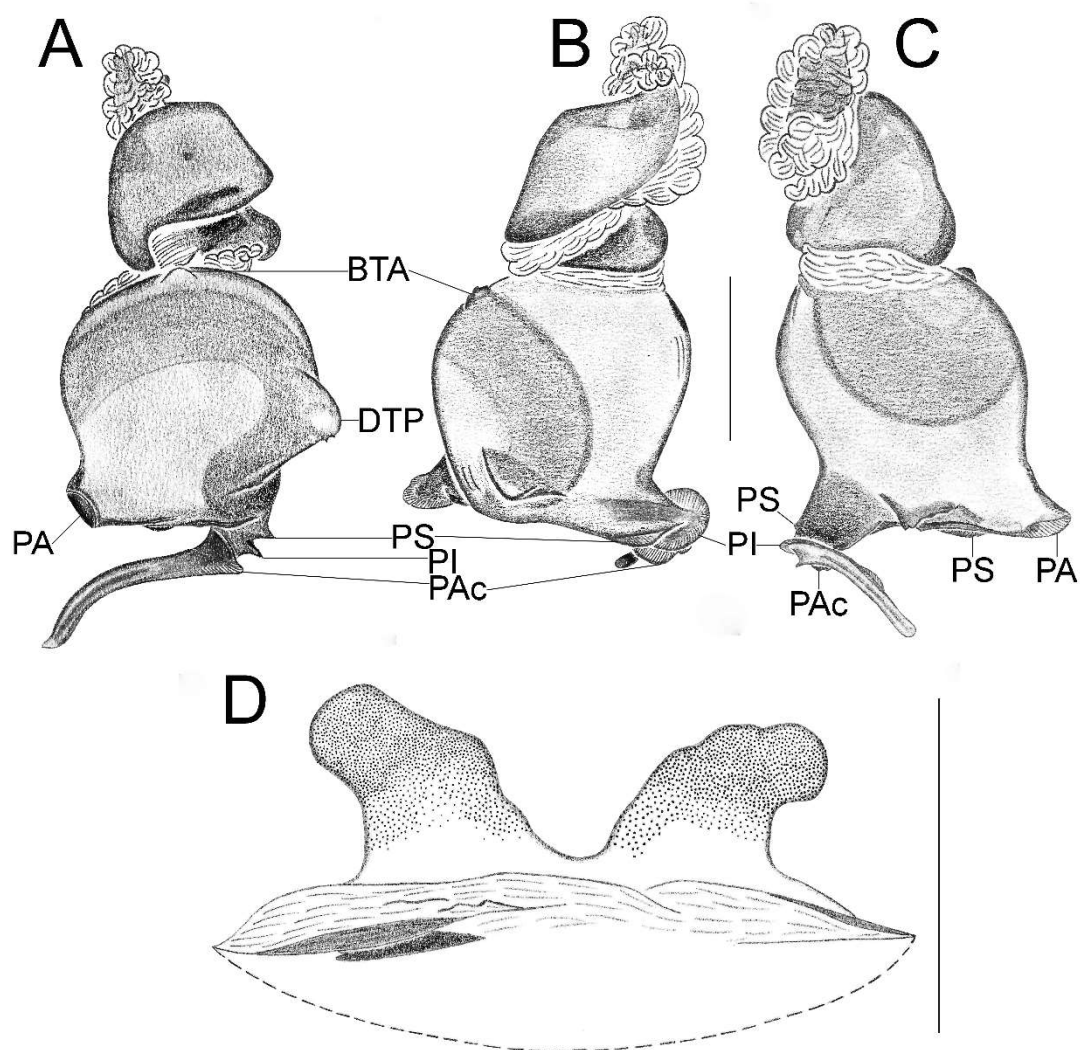


FIGURE 206 – *Actinopus panguana* n. sp., male: A–C IBSP 113687: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **DTP** – Distal Tegular Process; **PAc** – Prolateral Accessory keel; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Paratype, female: D AMNH: D. Spermathecae, dorsal view. Scale line: Male 0.5 mm, female: 1mm.

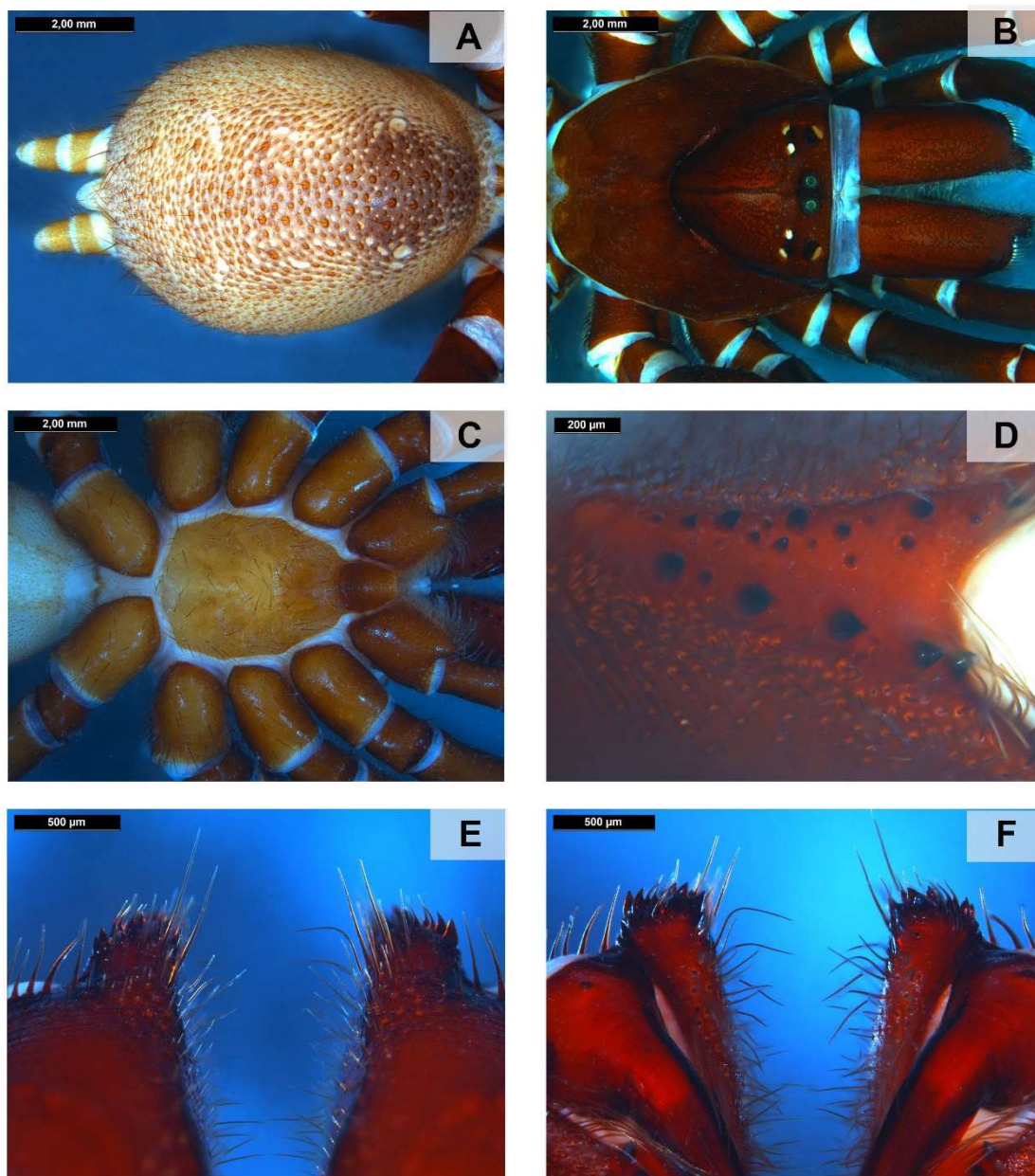


FIGURE 207 – *Actinopus loscocos* n. sp., female: A–F MACN-Ar 19827: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

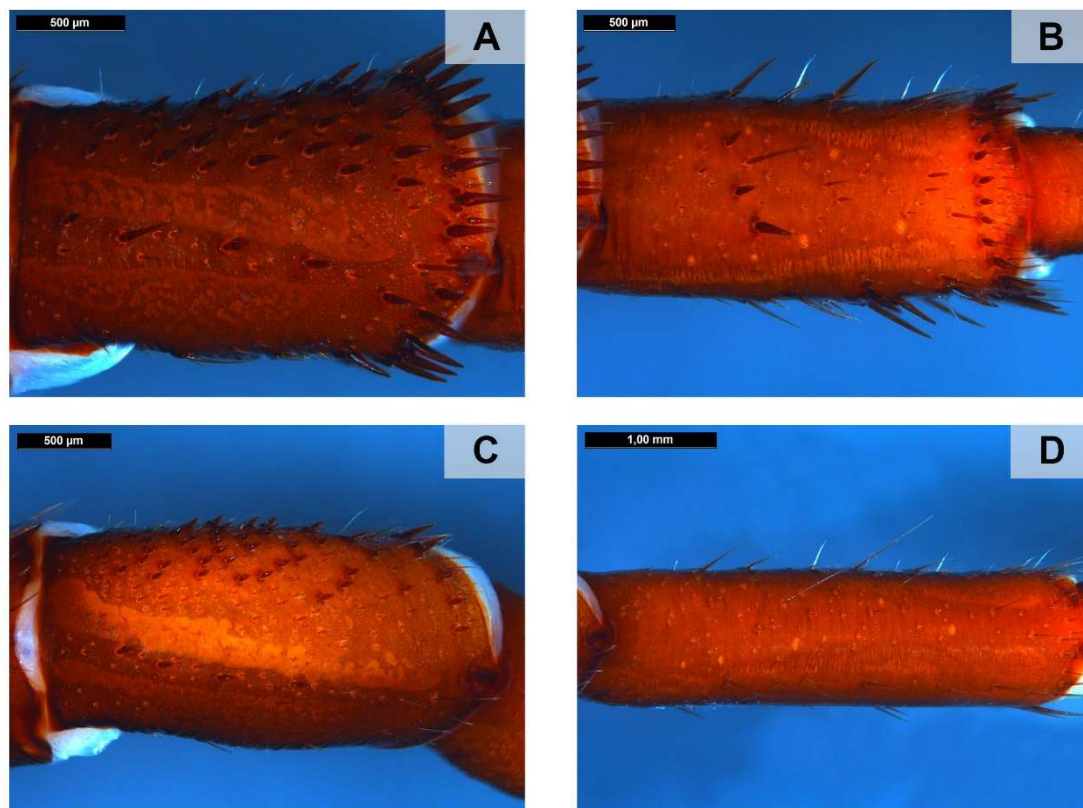


FIGURE 208 – *Actinopus loscocos* n. sp., male: A–D MACN-Ar 19827: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

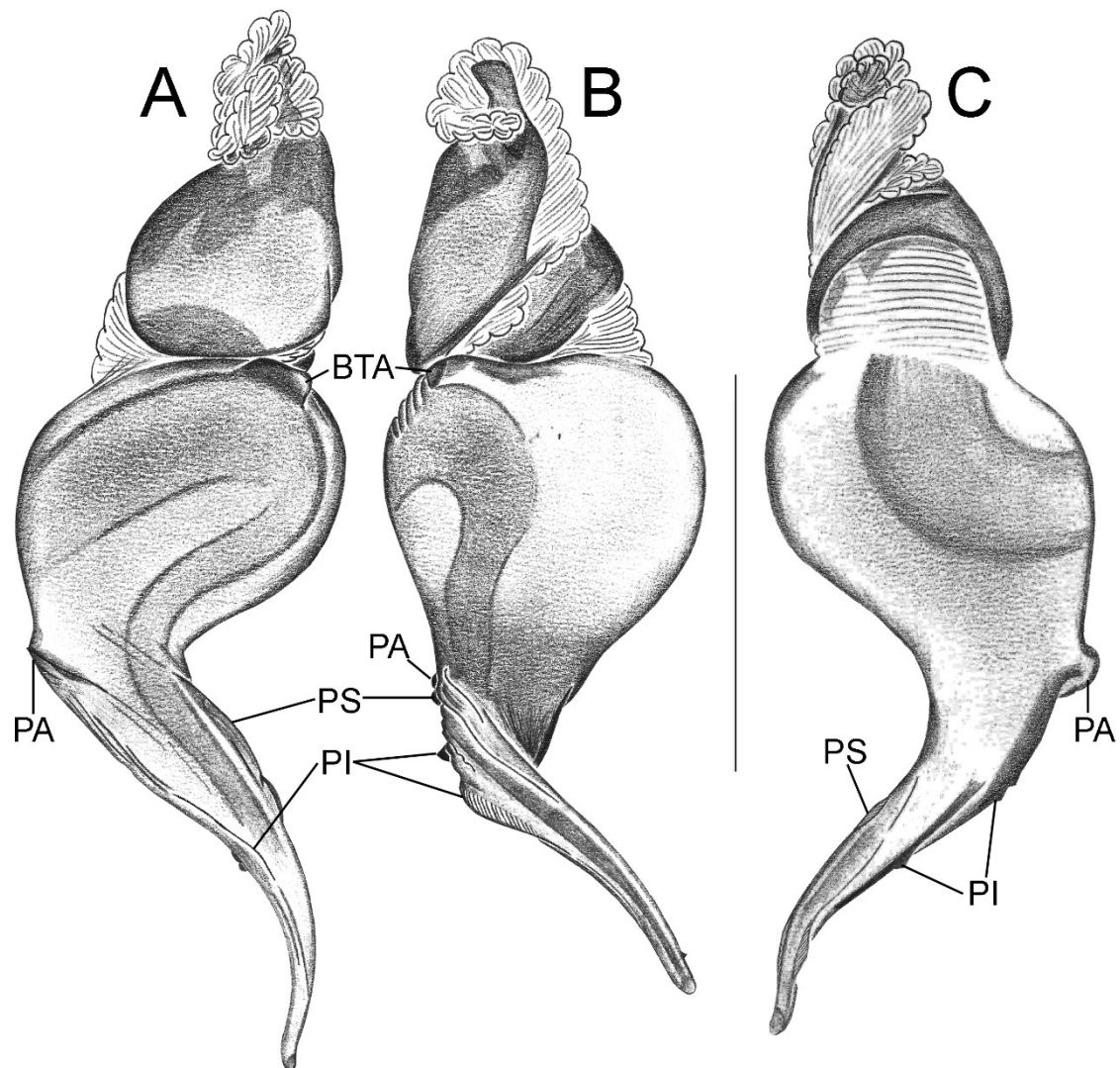


FIGURE 209 – *Actinopus loscocos* n. sp., male: A–C MACN-Ar 19827: A. Copulatory bulb, prolateral; B. Copulatory bulb, dorsal; C. Copulatory bulb, retrolateral. **PA** – Paraembolic apophysis; **BTA** – Basal Tegular Apophysis; **PI** – Prolateral Inferior keel; **PS** – Prolateral Superior keel. Scale line: 1mm.

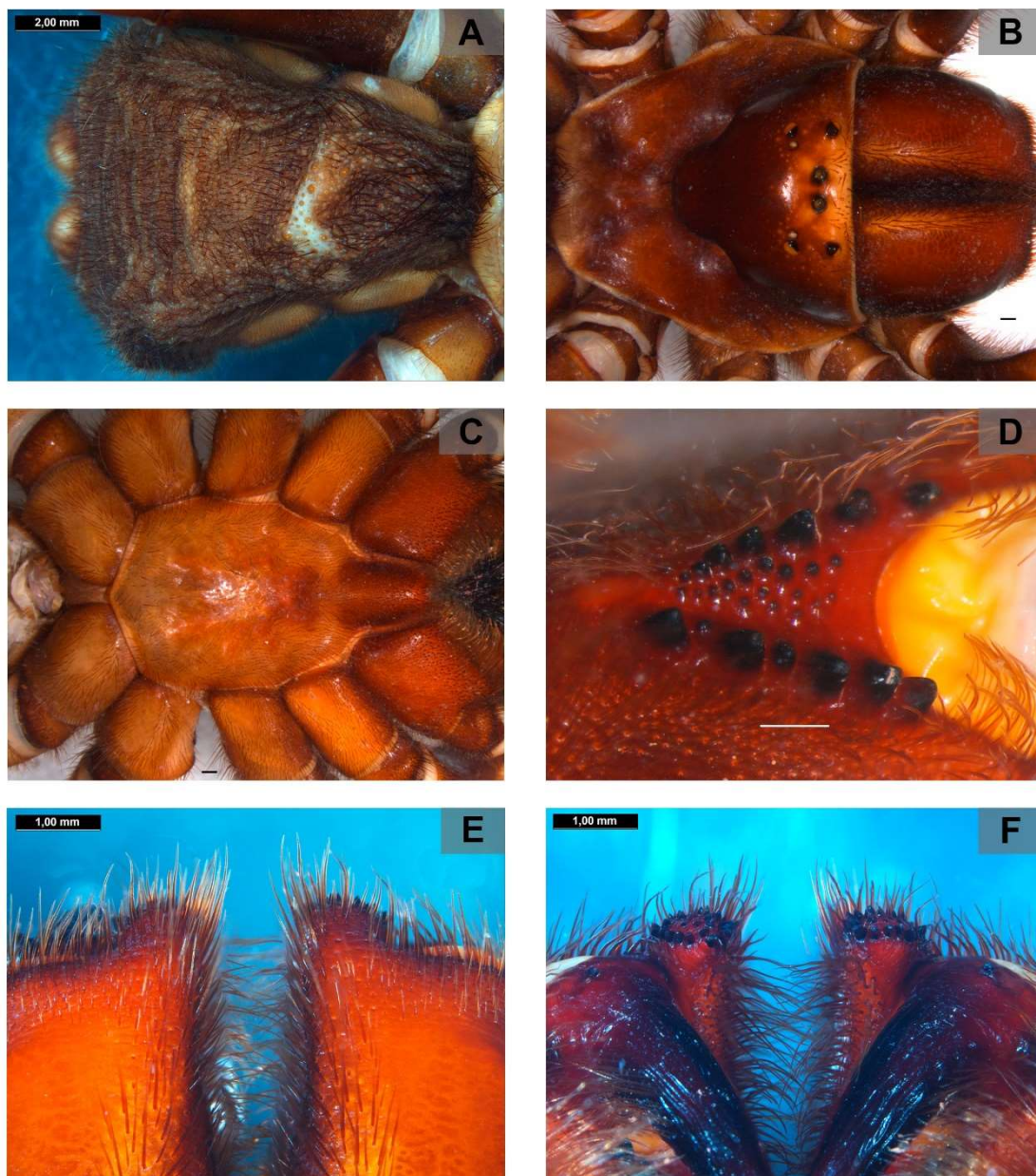


FIGURE 210 – *Actinopus echinus* Mello-Leitão, 1949, female: A–F IBSP 102907: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines B–C: 0.5 mm, D: 1 mm.

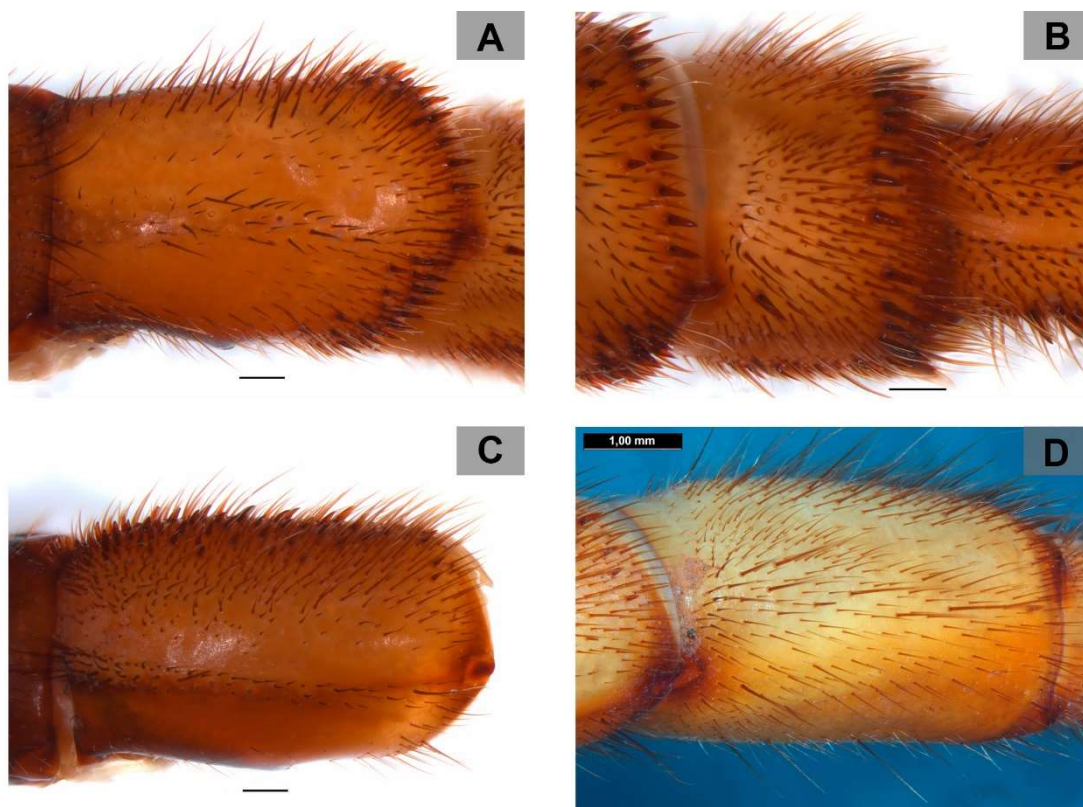


FIGURE 211 – *Actinopus echinus* Mello-Leitão, 1949, female: A–D IBSP 102907: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A–C: 0.5 mm.

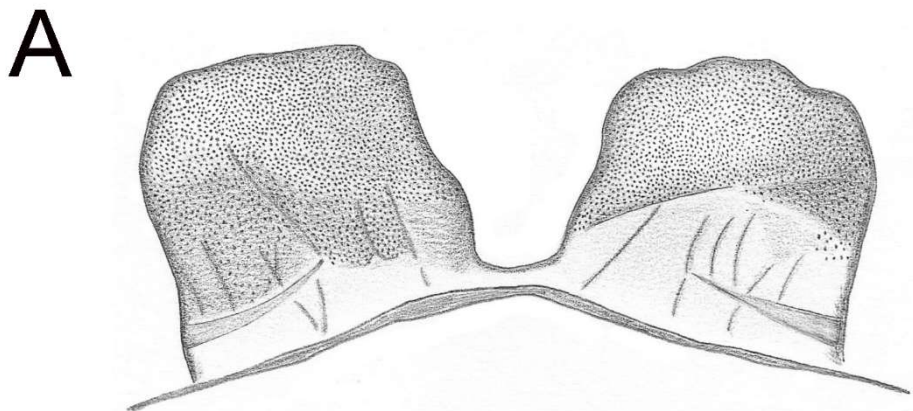


FIGURE 212 – *Actinopus echinus* Mello-Leitão, 1949, female: 212 IBSP 4907: 212. Spermathecae, dorsal view. Scale line: 0.5 mm.

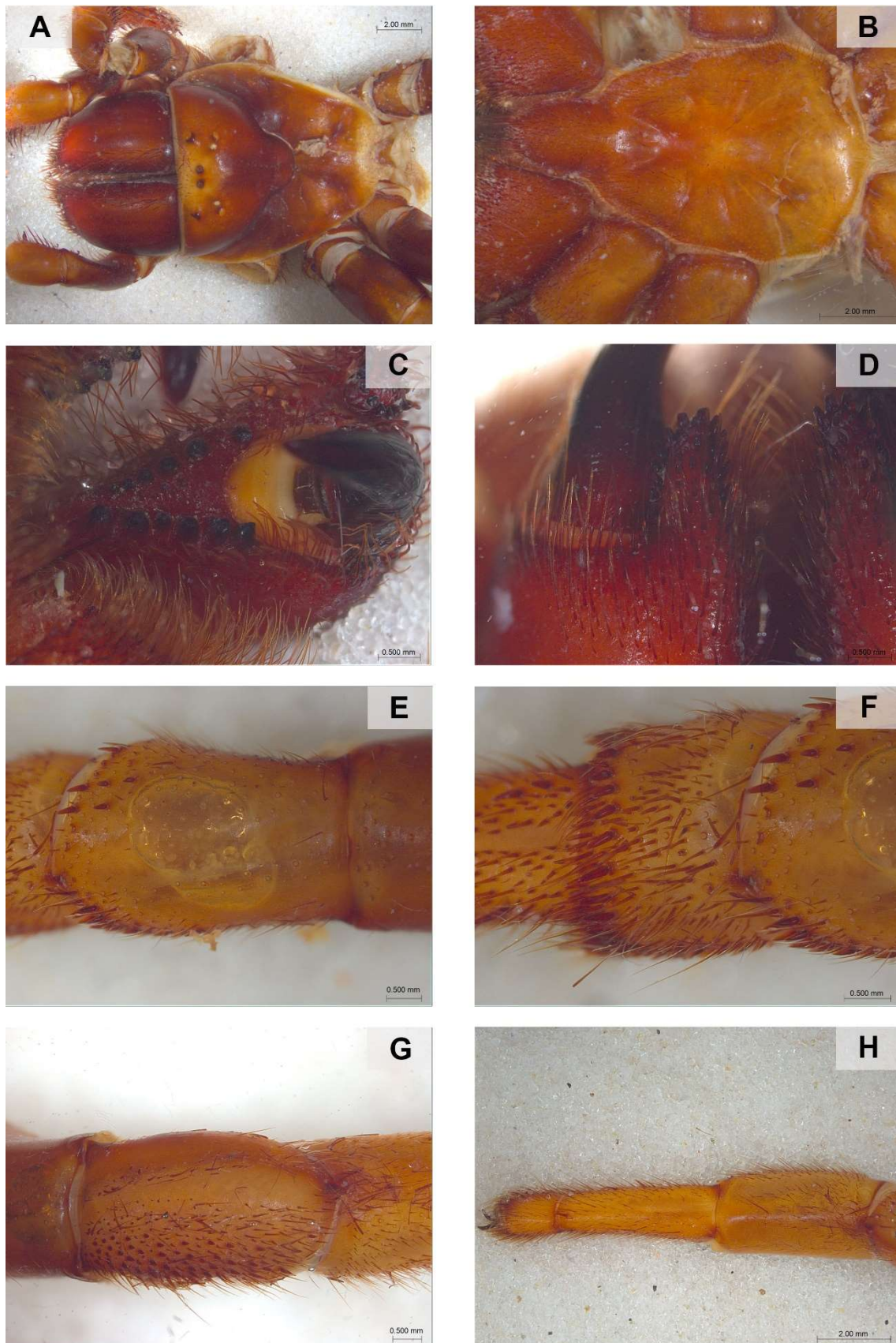


FIGURE 213 – *Actinopus xenus* Chamberlin, 1917, holotype, female: A–H MCZ 3: A. Carapace and chelicerae, dorsal; B. Sternum, ventral; C. Cheliceral teeth, ventral; D. Rastellum, dorsal; E. Patela III, dorsal; F. Tibia III, dorsal; G. Patela IV, dorsal; H. Tibia, metatarsos and tarsus IV, dorsal. Photos: R. Saturnino.



FIGURE 214 – *Actinopus xenus* Chamberlin, 1917, holotype, female: 214 MCZ 03: 214. Spermathecae, dorsal view. Photo: R. Saturnino.

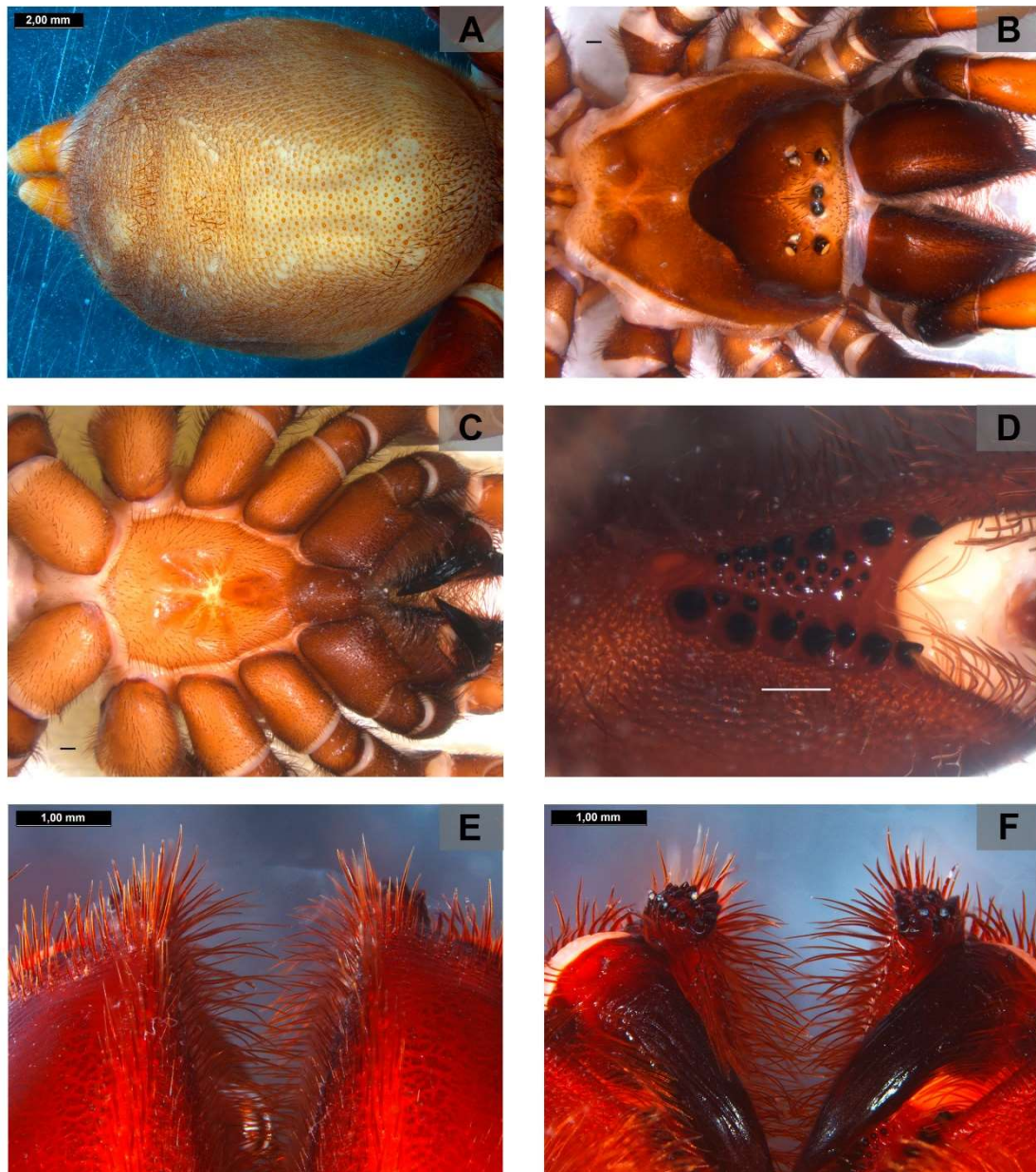


FIGURE 215 – *Actinopus princeps* Chamberlin, 1917, female: A–F IBSP 14503: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines: B: 0.5 mm, D: 1 mm.

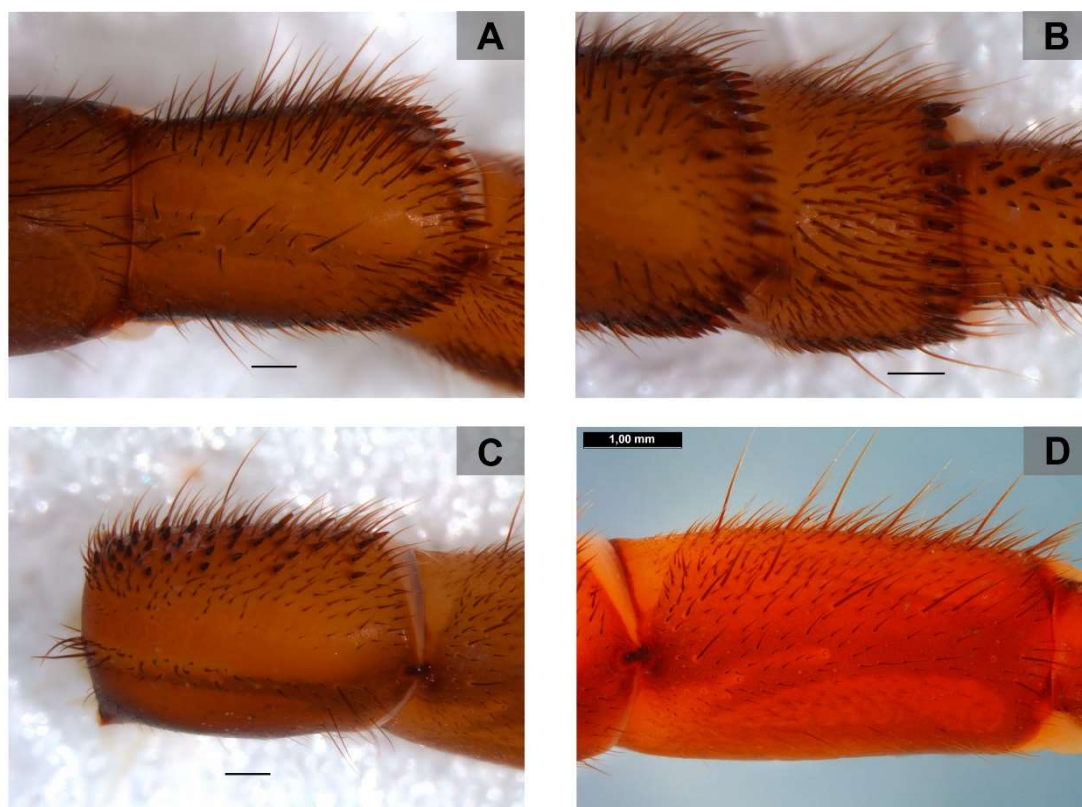


FIGURE 216 – *Actinopus princeps* Chamberlin, 1917, female: A–D IBSP 14503: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A–C: 0.5 mm.

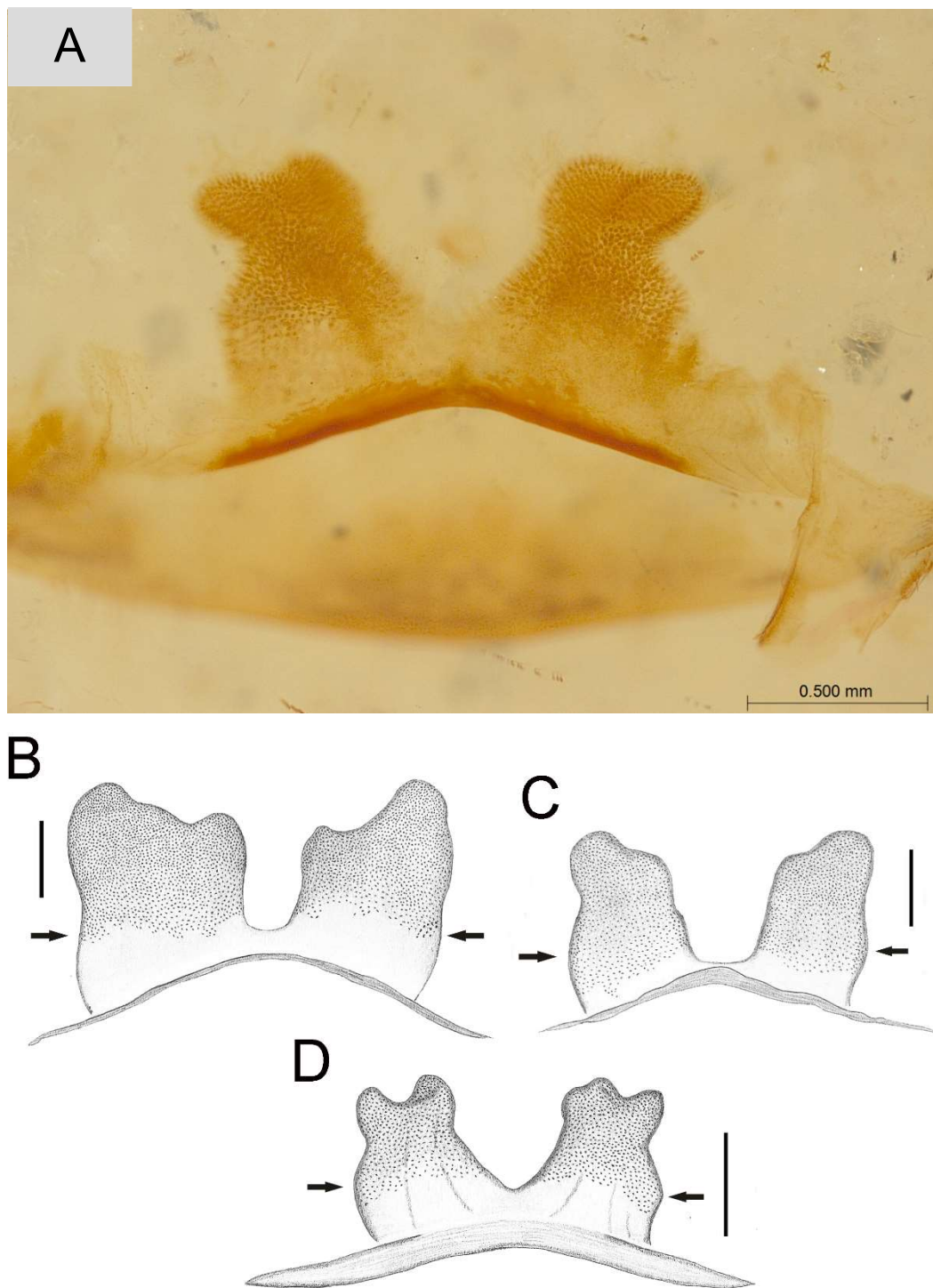


FIGURE 217 – *Actinopus princeps* Chamberlin, 1917, holotype, female: A MCZ 5: A. Spermathecae, dorsal view. Photo: R. Saturnino. B IBSP 114503, C IBSP 114470 and D IBSP 108889: B–D Spermathecae, dorsal view. Arrows: Receptacle swellings. Scale line: 0.5 mm.

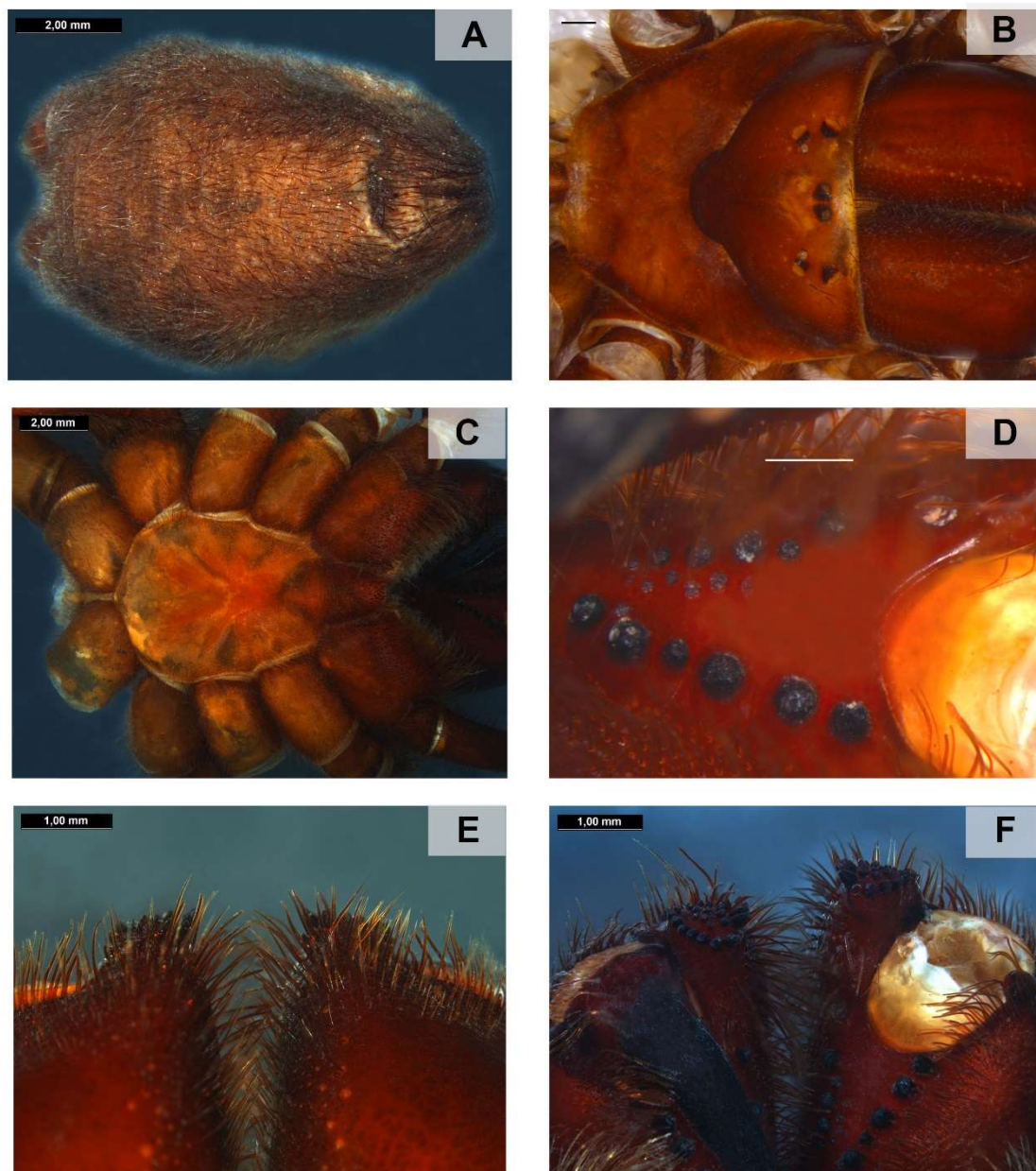


FIGURE 218 – *Actinopus trinotatus* Mello-Leitão, 1938, holotype, female: A–F IBSP 103431: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral. Scales lines: B: 1 mm, D: 0.5 mm.

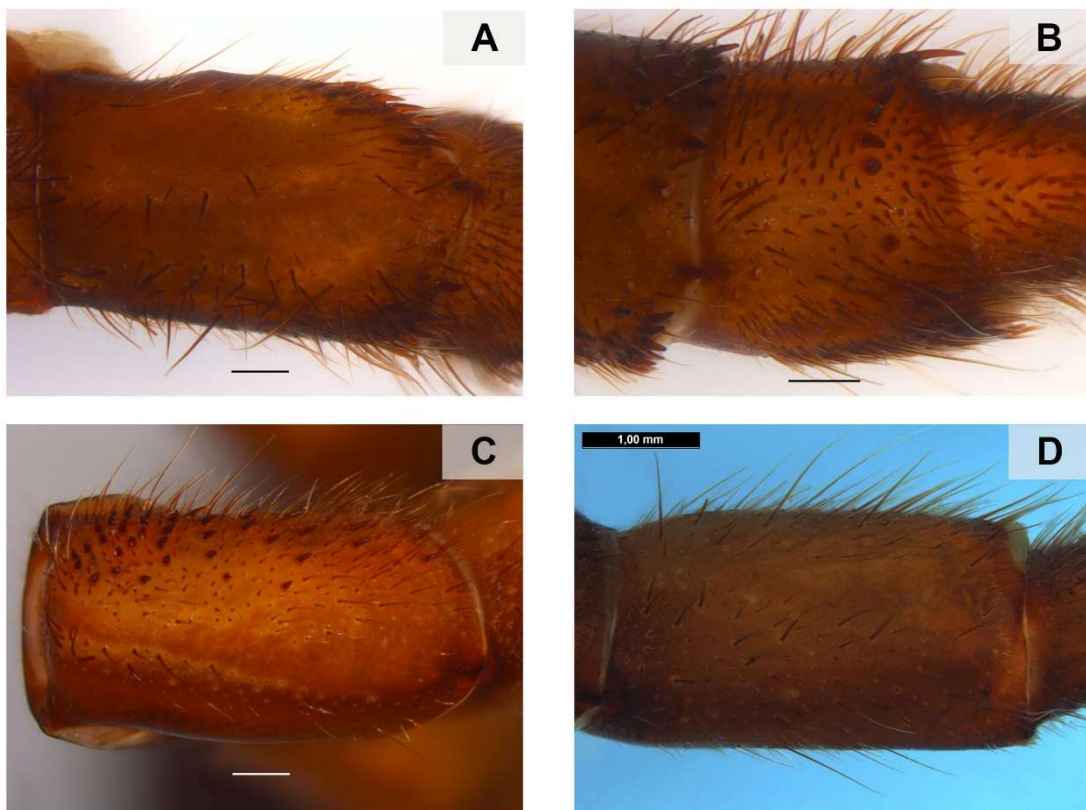


FIGURE 219 – *Actinopus trinotatus* Mello-Leitão, 1938, holotype, female: A–D IBSP 103431: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal. Scales lines A-C: 0.5 mm.

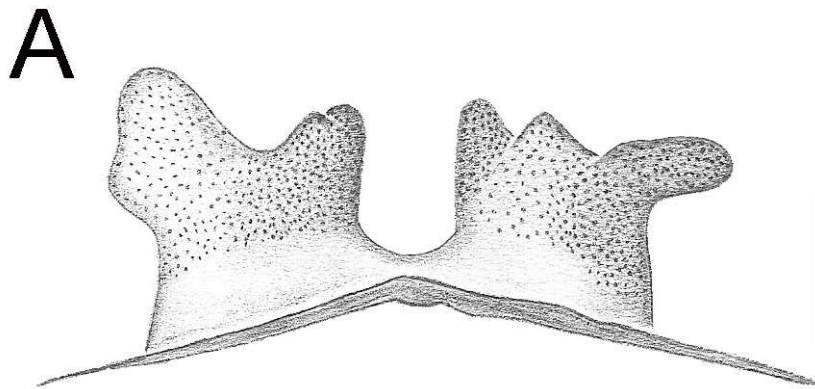


FIGURE 220 – *Actinopus trinotatus* Mello-Leitão, 1938, holotype, female: A IBSP 3431: A. Spermathecae, dorsal view. Scale line: 0.5 mm.

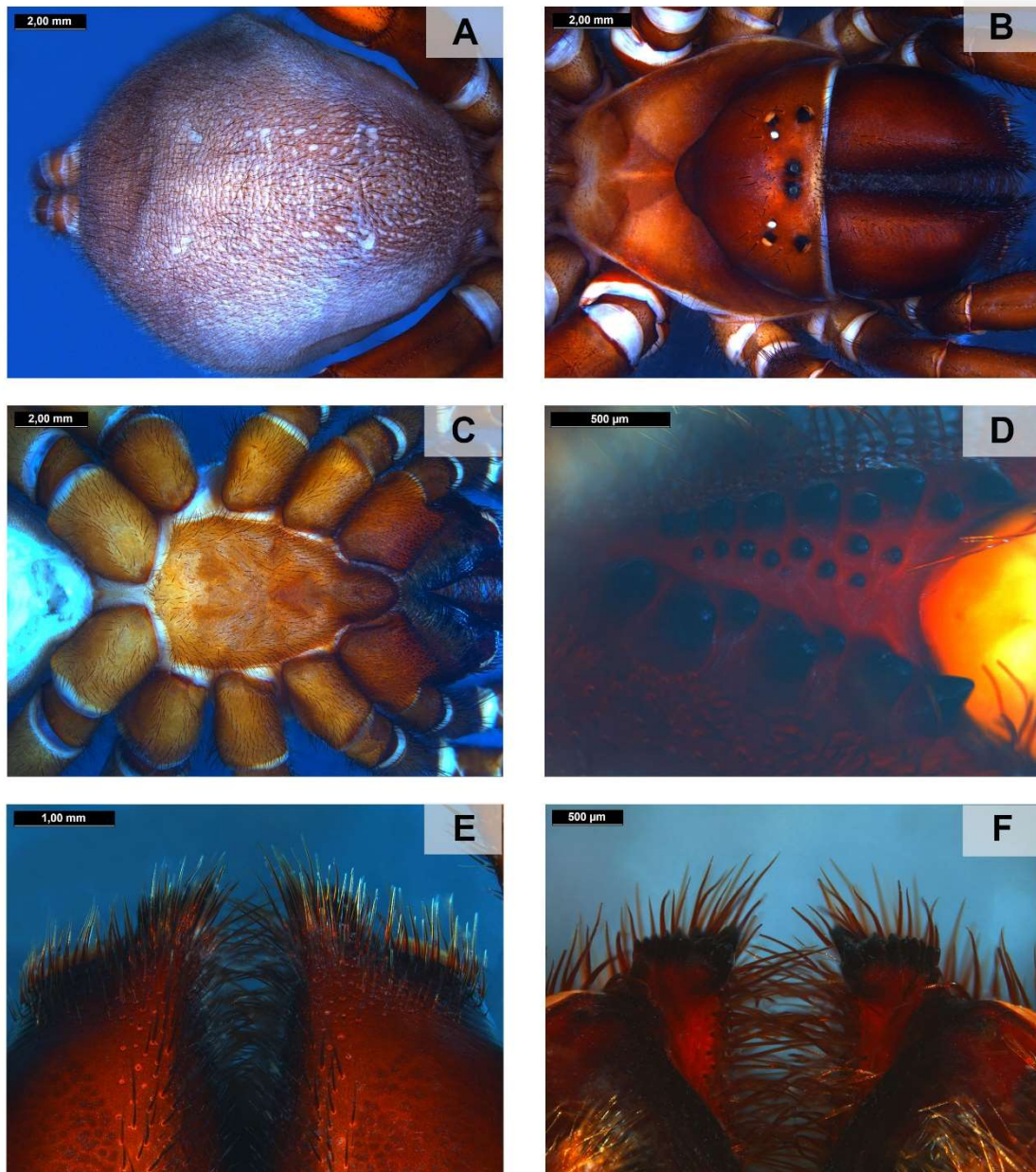


FIGURE 221 – *Actinopus wallacei* F. O. Pickard-Cambridge, 1896, female: A–F AMNH: A. Abdomen, dorsal; B. Carapace, dorsal; C. Sternum, ventral; D. Cheliceral teeth, ventral; E. Rastellum, dorsal; F. Rastellum, ventral.

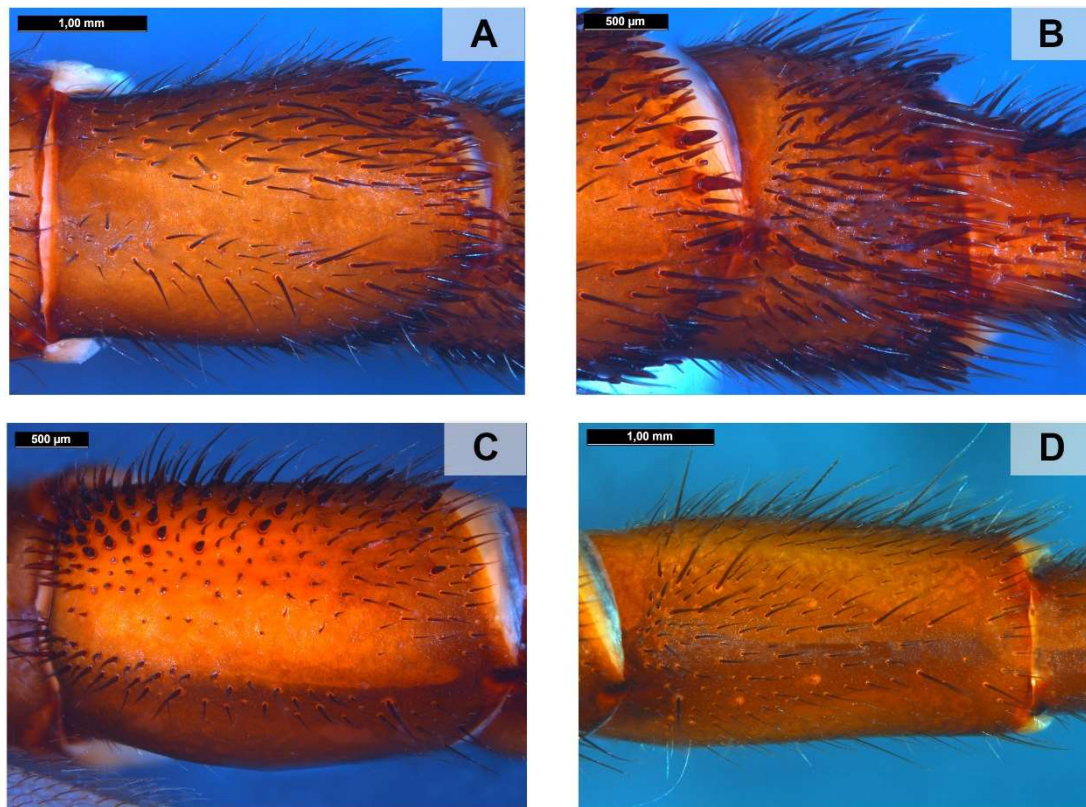


FIGURE 222 – *Actinopus wallacei* F. O. Pickard-Cambridge, 1896, female: A–D AMNH: A. Patela III, dorsal; B. Tibia III, dorsal; C. Patela IV, dorsal; D. Tibia IV, dorsal.

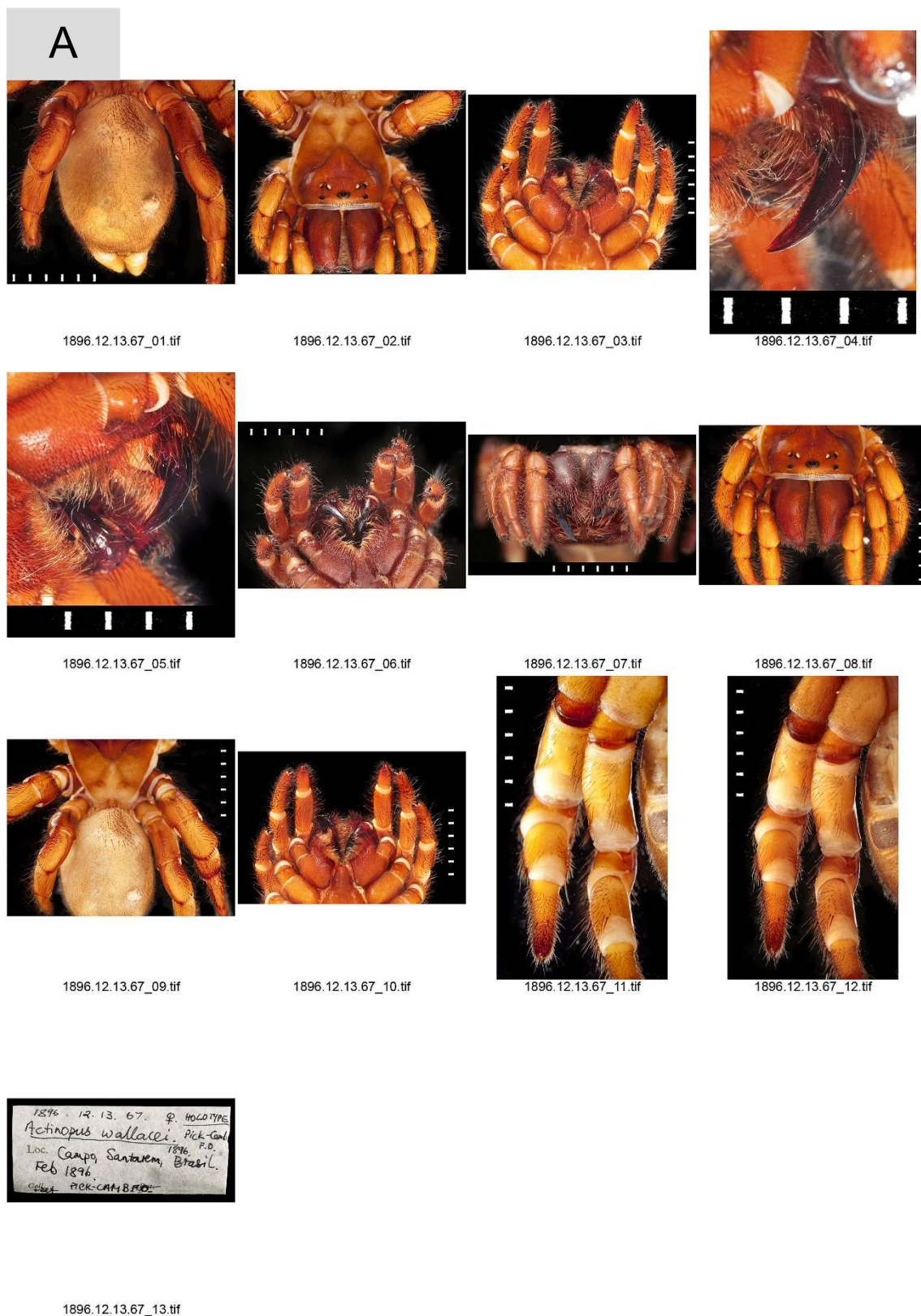


FIGURE 223 – *Actinopus wallacei* F. O. Pickard-Cambridge, 1896, holotype from NHM, female: A NHM: A. Plate made by Janet Becalloni, with fotos from interest region to search diagnostics characters for *A. wallacei*, female.

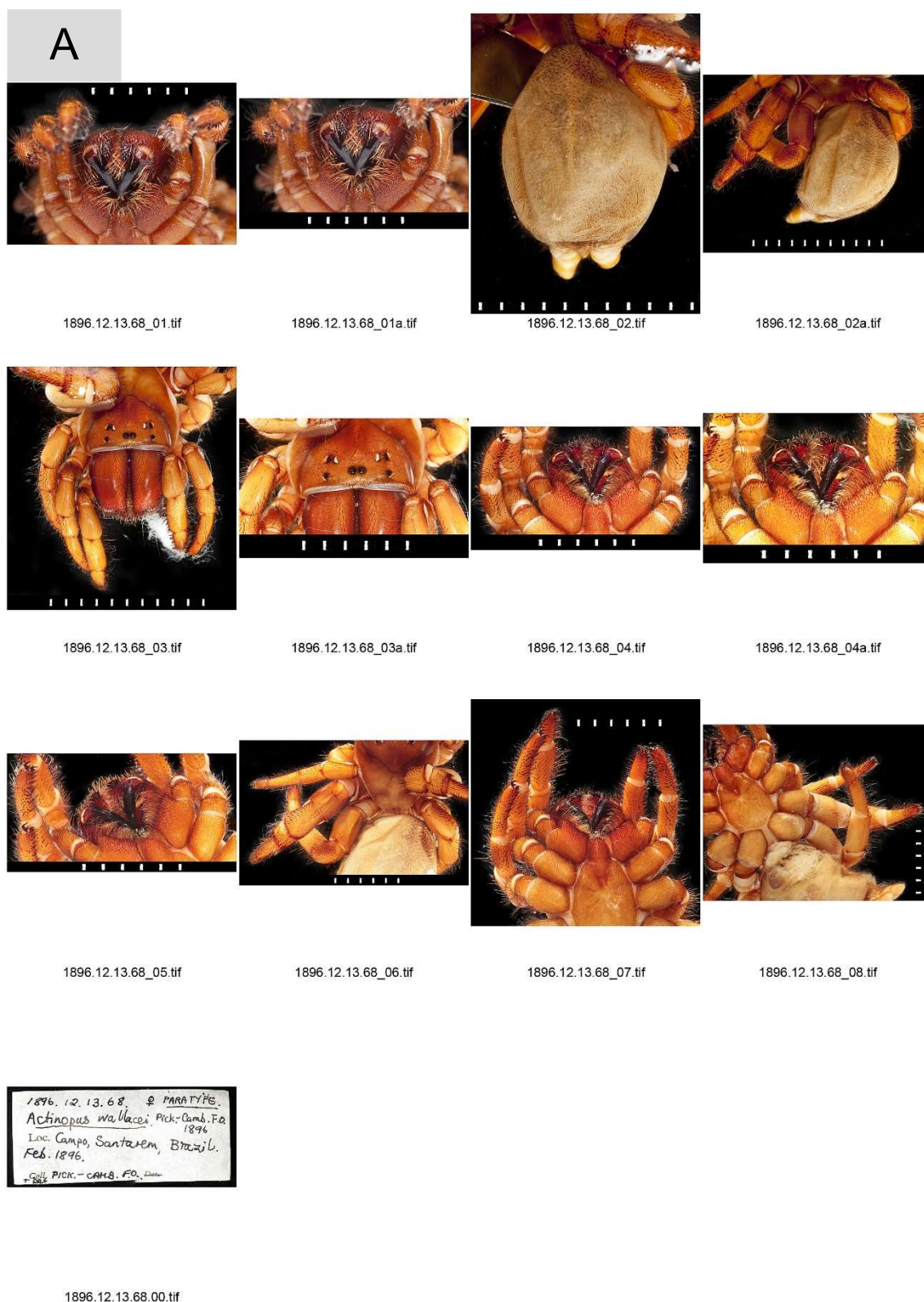


FIGURE 224 – *Actinopus wallacei* F. O. Pickard-Cambridge, 1896, paratype from NHM, female: A NHM: A. Plate made by Janet Becalloni, with fotos from interest region to search diagnostics characters for *A. wallacei*, female.

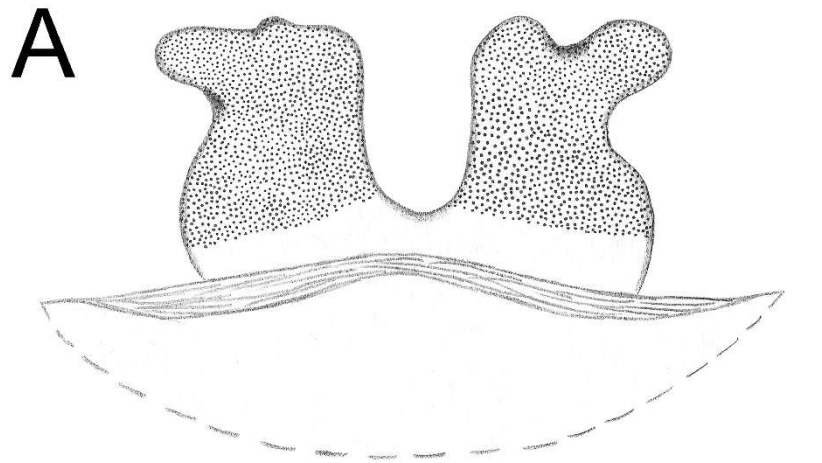
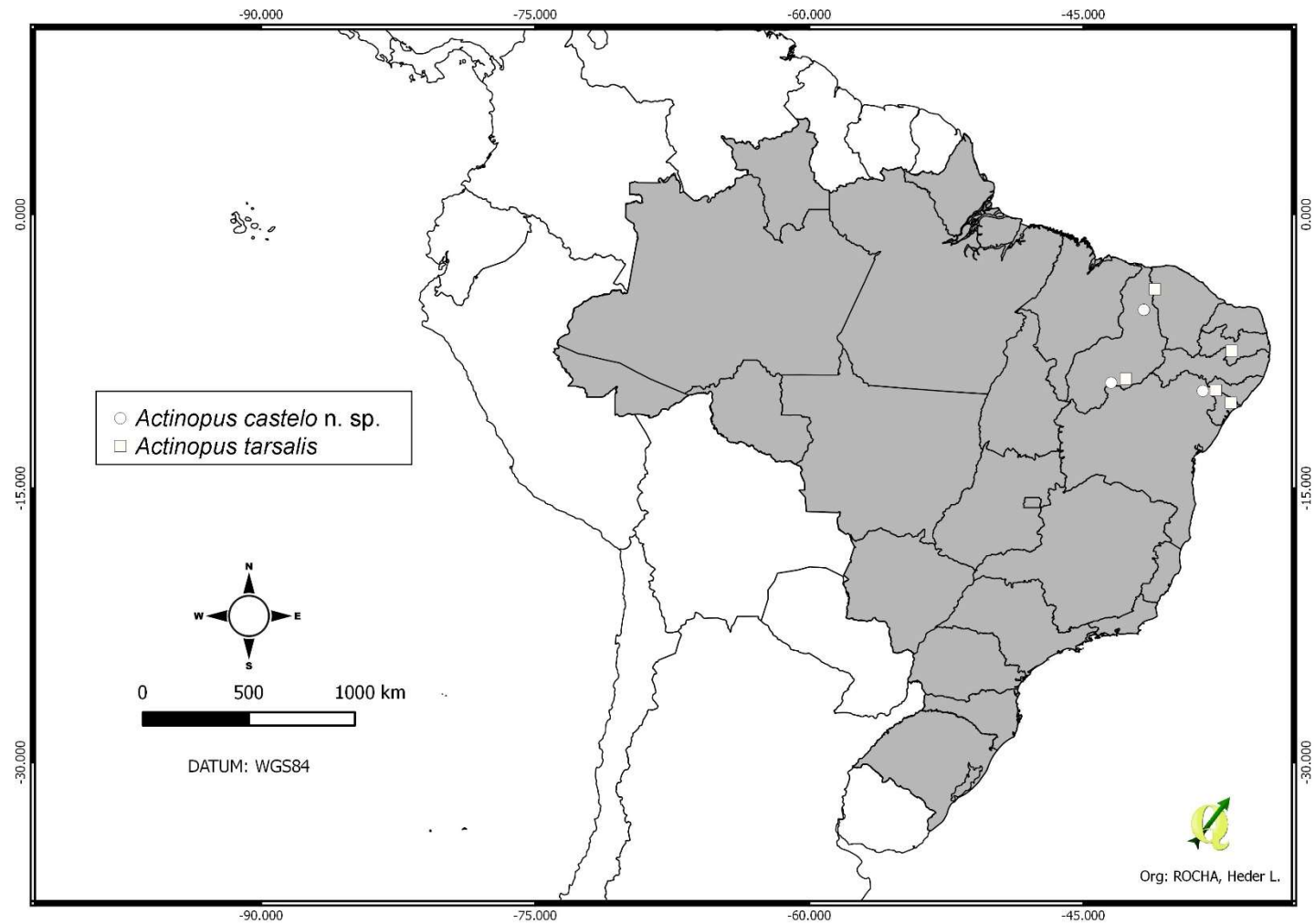
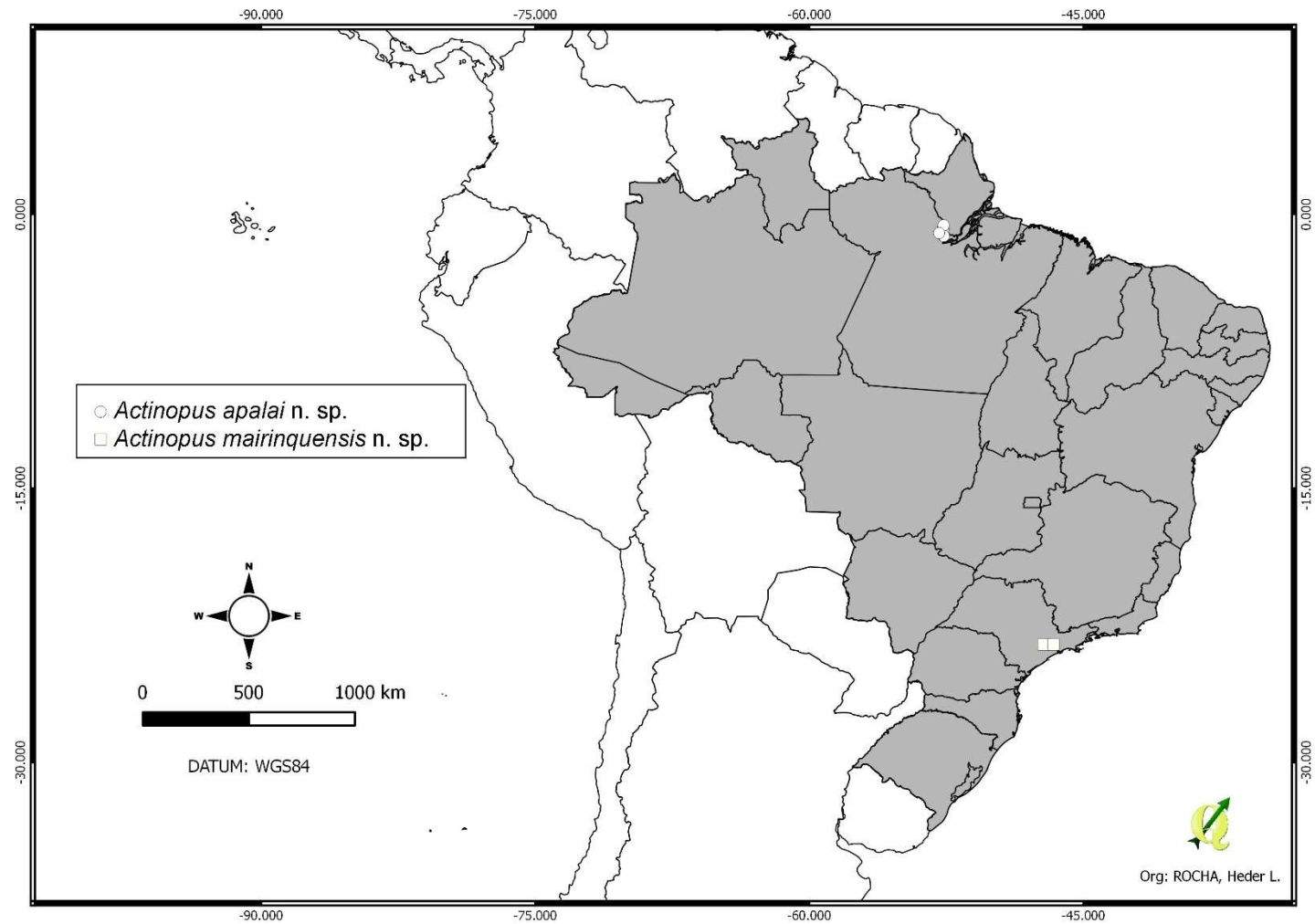


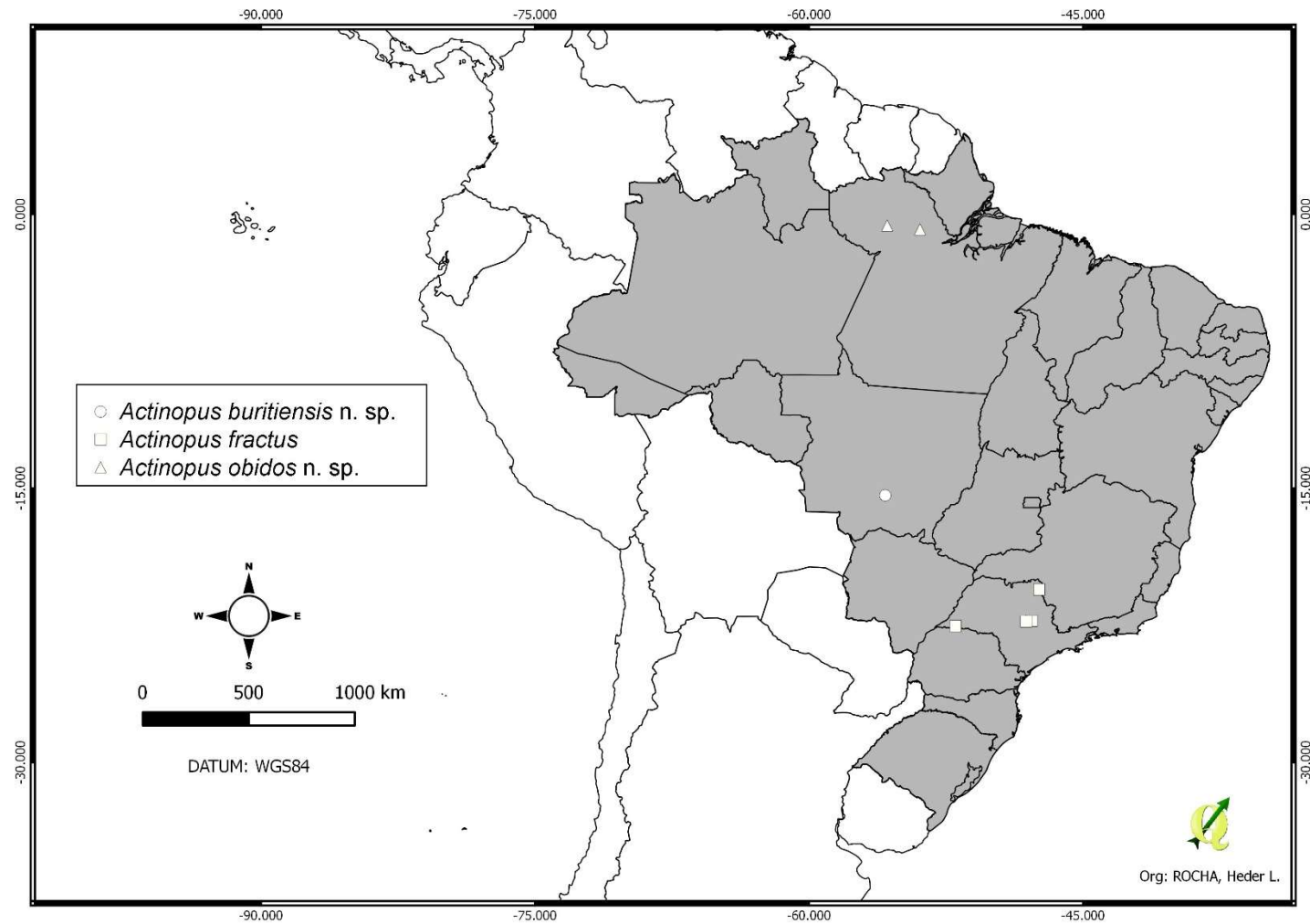
FIGURE 225 — *Actinopus wallacei* F. O. Pickard-Cambridge, 1896, female: A AMNH: A. Spermathecae, dorsal view. Scale line: 1 mm.



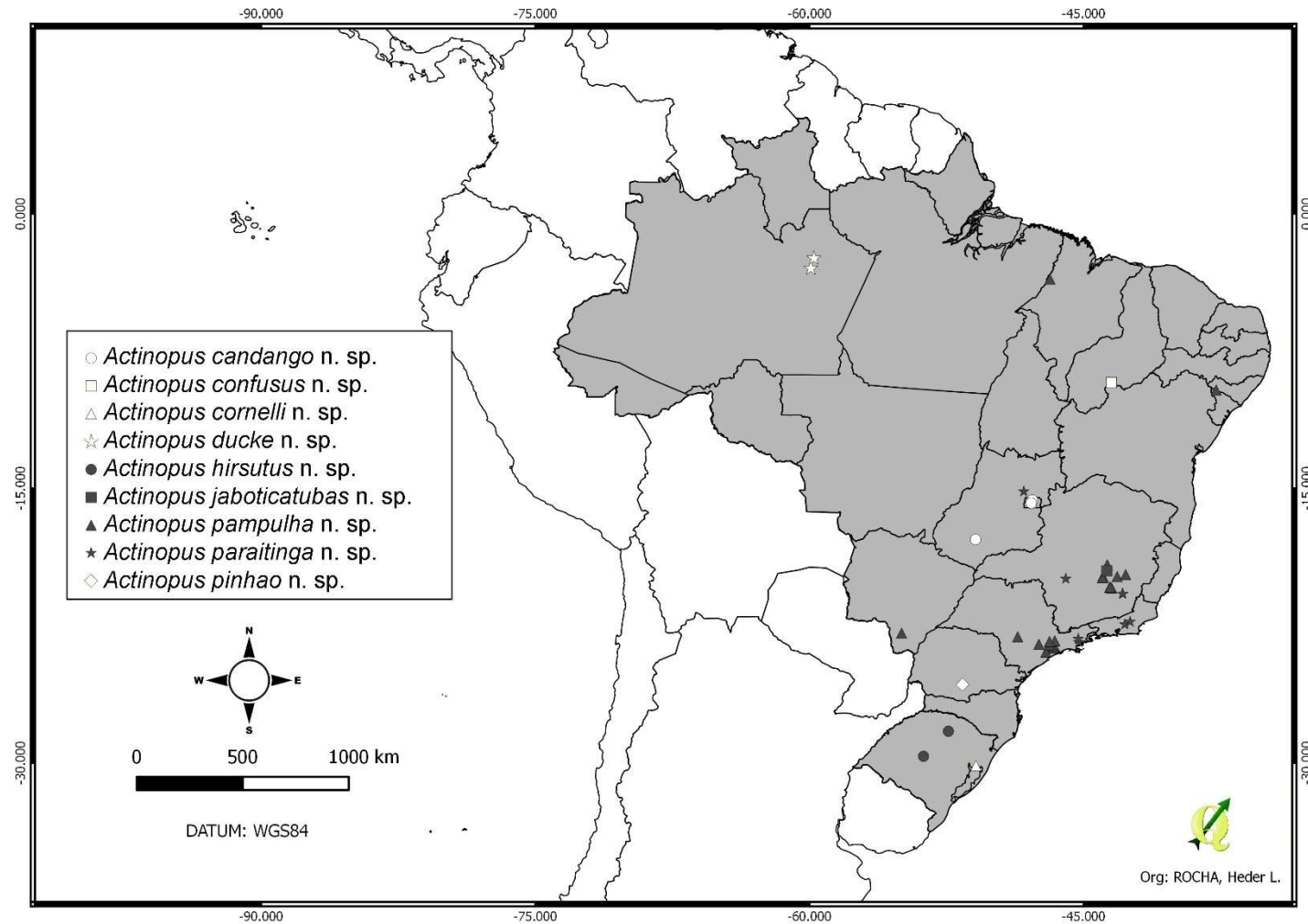
Map 1. Distribution map of *Actinopus tarsalis* Perty, 1833, and *Actinopus castelo n. sp.*



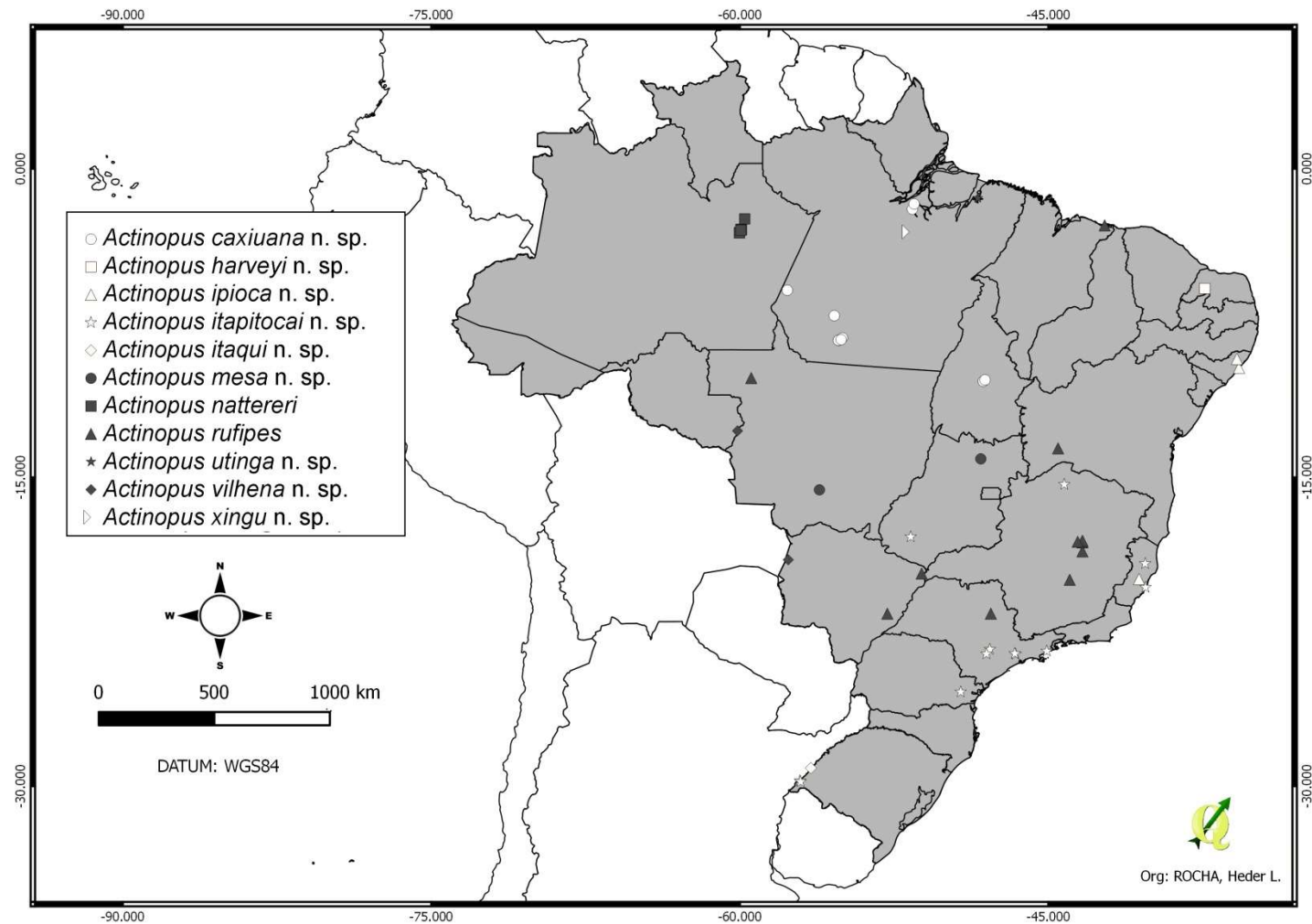
Map 2. Distribution map of *Actinopus mairinquensis* n. sp., and *Actinopus apalai* n. sp.



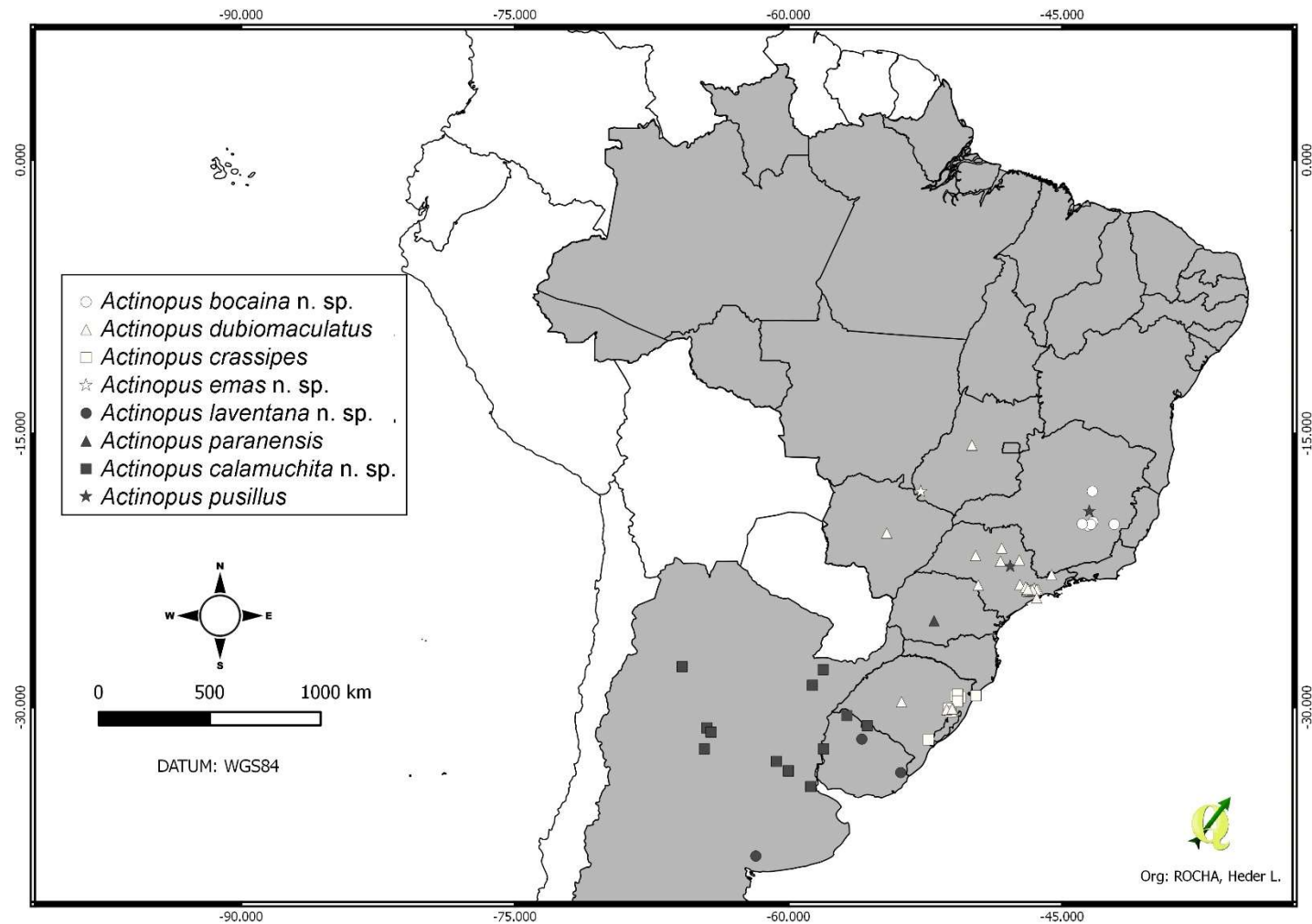
Map 3. Distribution map of *Actinopus fractus* Mello-Leitão, 1920, *Actinopus obidos* n. sp., and *Actinopus buritiensis* n. sp.



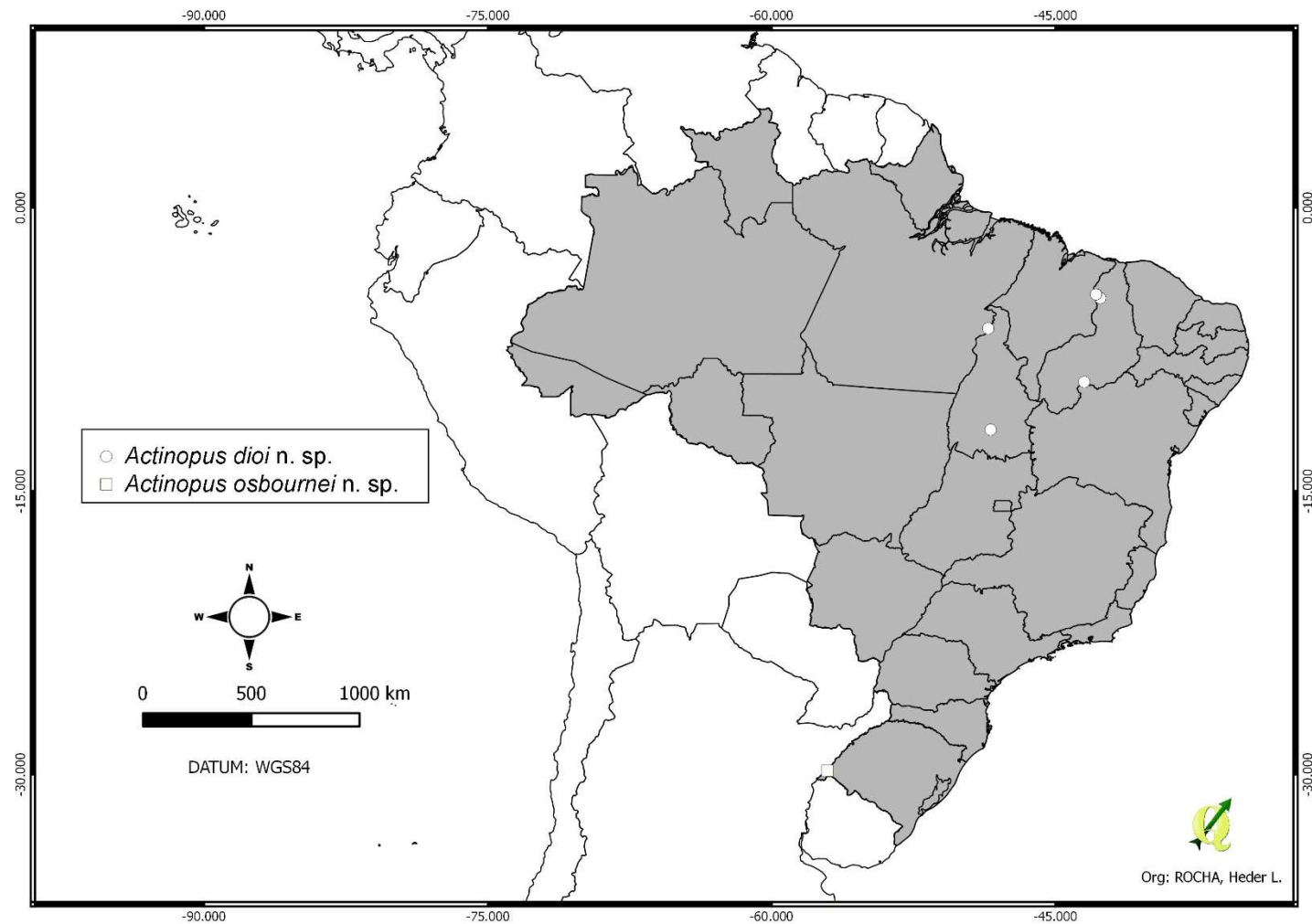
Map 4. Distribution map of *Actinopus confusus* n. sp., *Actinopus jaboticatubas* n. sp., *Actinopus hirsutus* n. sp., *Actinopus ducke* n. sp., *Actinopus cornelli* n. sp., *Actinopus pampulha* n. sp., *Actinopus paraitinga* n. sp., *Actinopus candango* n. sp., and *Actinopus pinhao* n. sp.



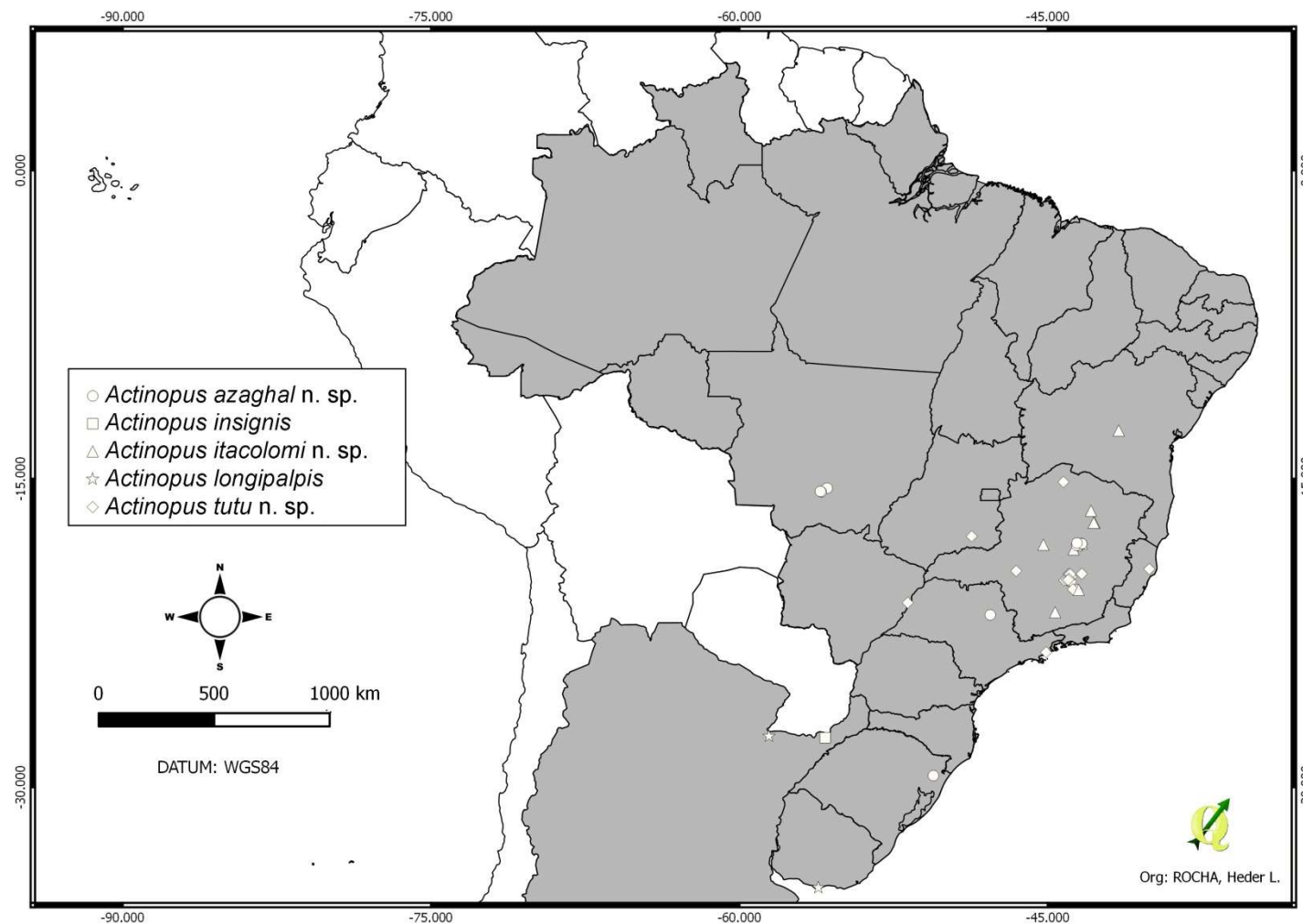
Map 5. Distribution map of *Actinopus vilhena* n. sp., *Actinopus rufipes* (Lucas, 1834), *Actinopus nattereri* (Doleschall, 1871) n. sp., *Actinopus utinga* n. sp., *Actinopus caxiuana* n. sp., *Actinopus mesa* n. sp., *Actinopus xingu* n. sp., *Actinopus itaqui* n. sp., *Actinopus ipioca* n. sp., *Actinopus itapitocai* n. sp. and *Actinopus harveyi* n. sp.



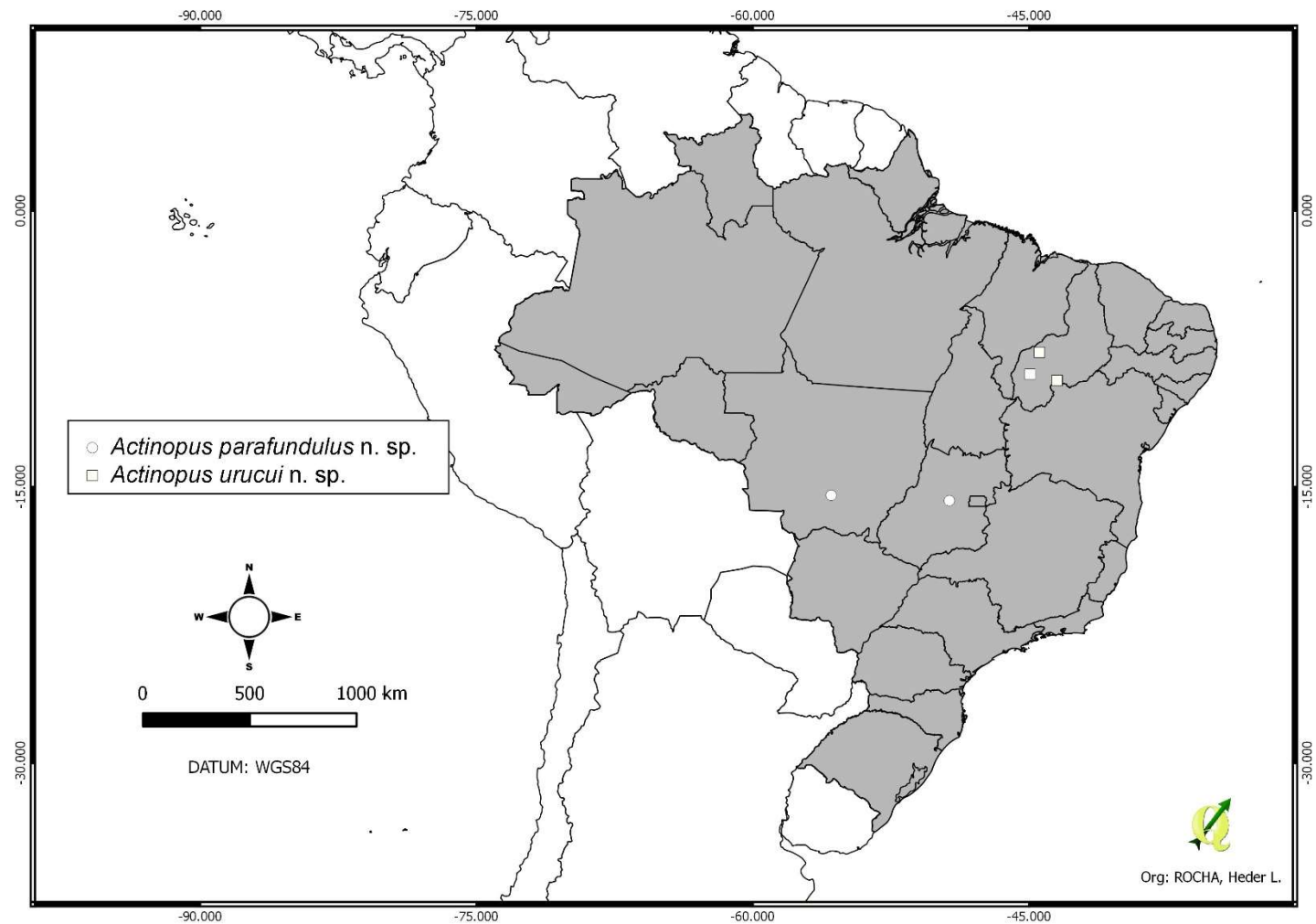
Map 6. Distribution map of *Actinopus laventana* n. sp., *Actinopus bocaina* n. sp., *Actinopus emas* n. sp., *Actinopus pusillus* Mello-Leitão, 1920, *Actinopus paranensis* Mello-Leitão, 1920, *Actinopus dubiomaculatus* Mello-Leitão, 1923, *Actinopus crassipes* (Keyserling, 1891) and *Actinopus calamuchita* n. sp.



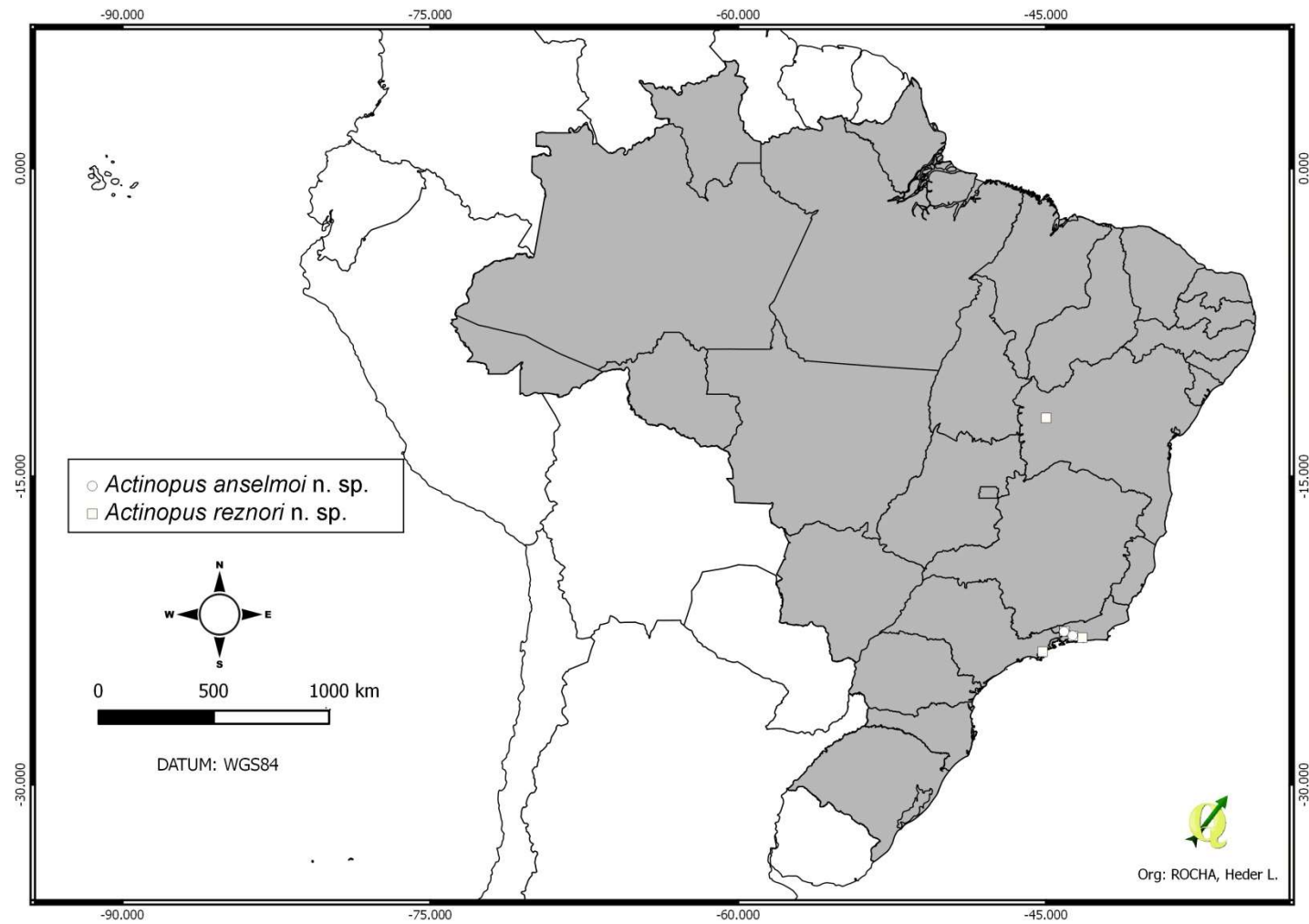
Map 7. Distribution map of *Actinopus dioi* n. sp. and *Actinopus osbournei* n. sp.



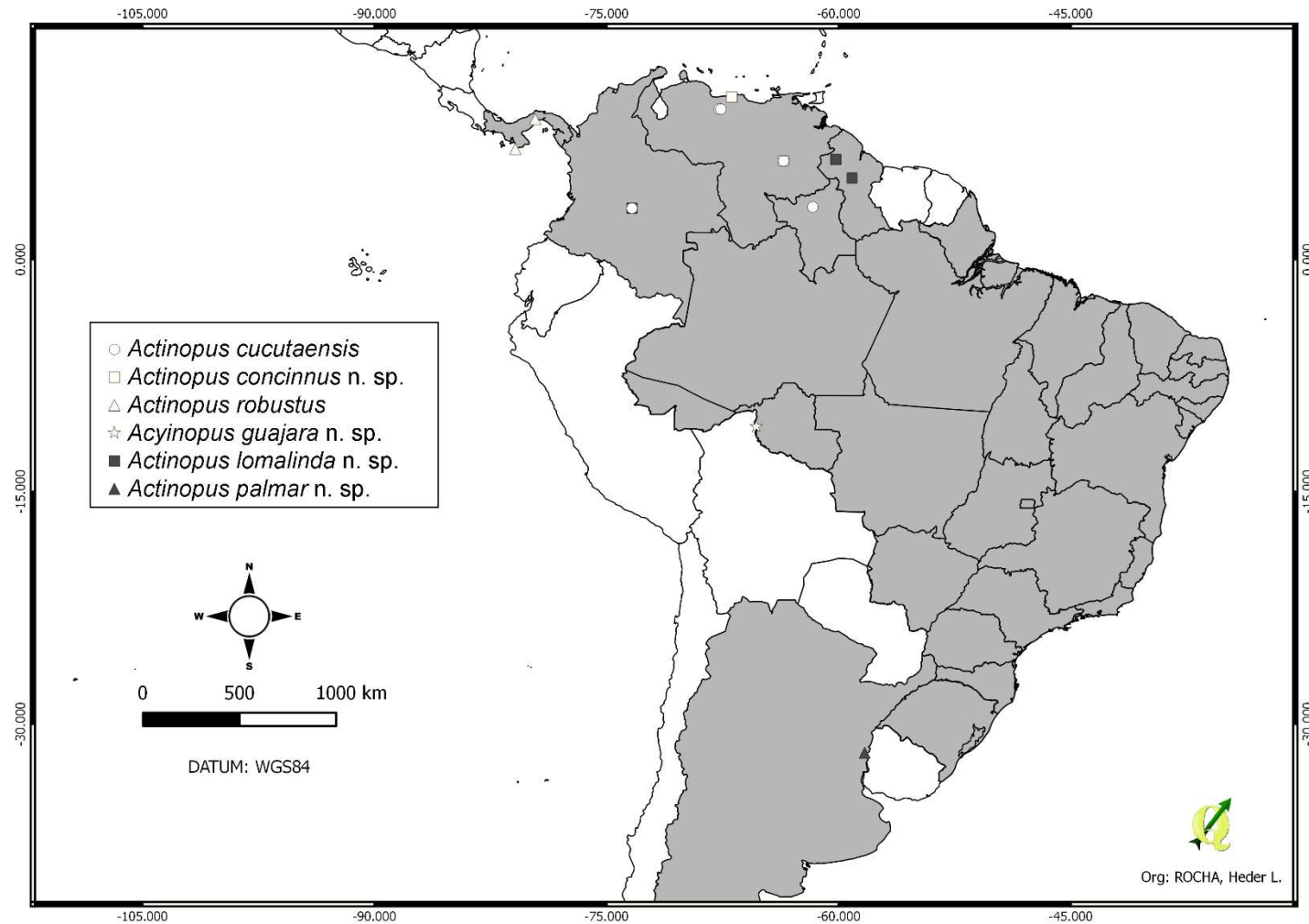
Map 8. Distribution map of *Actinopus insignis* n. sp., *Actinopus longipalpis* C. L. Koch, 1842, *Actinopus itacolomi* n. sp., *Actinopus azaghal* n. sp. and *Actinopus tutu* n. sp.



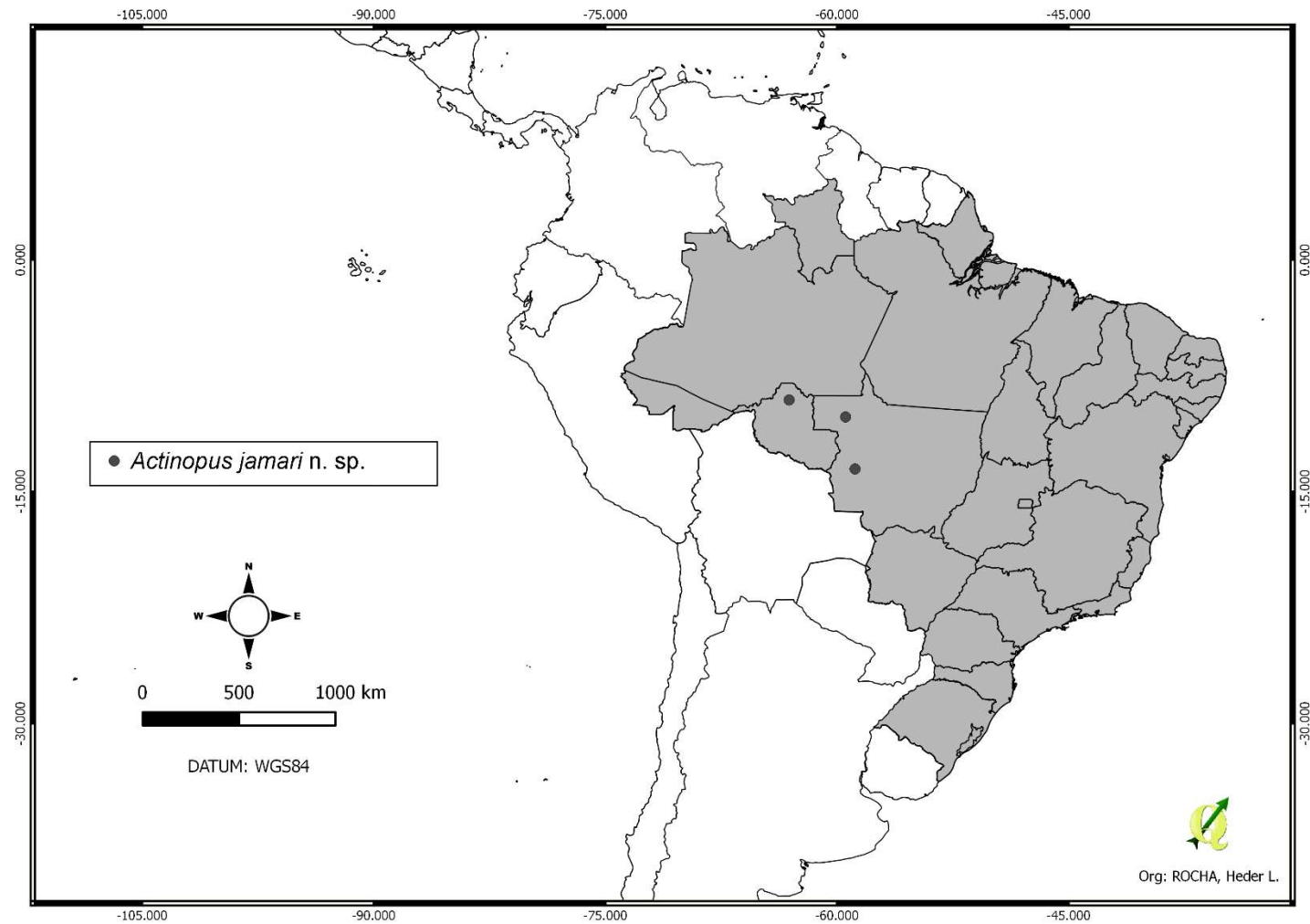
Map 9. Distribution map of *Actinopus parafundulus* n. sp. and *Actinopus urucui* n. sp.



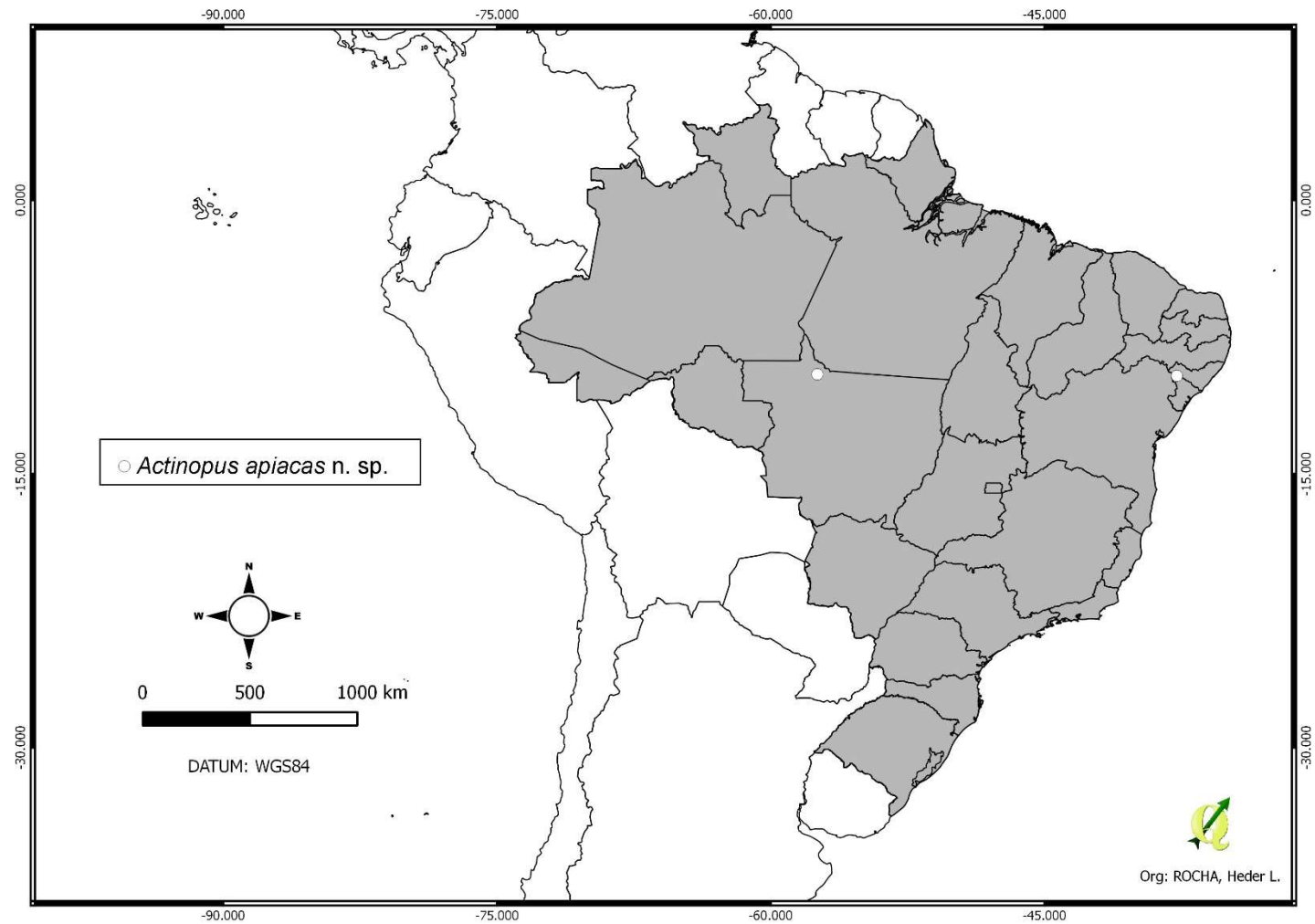
Map 10. Distribution map of *Actinopus reznori* n. sp. and *Actinopus anselmoi* n. sp.



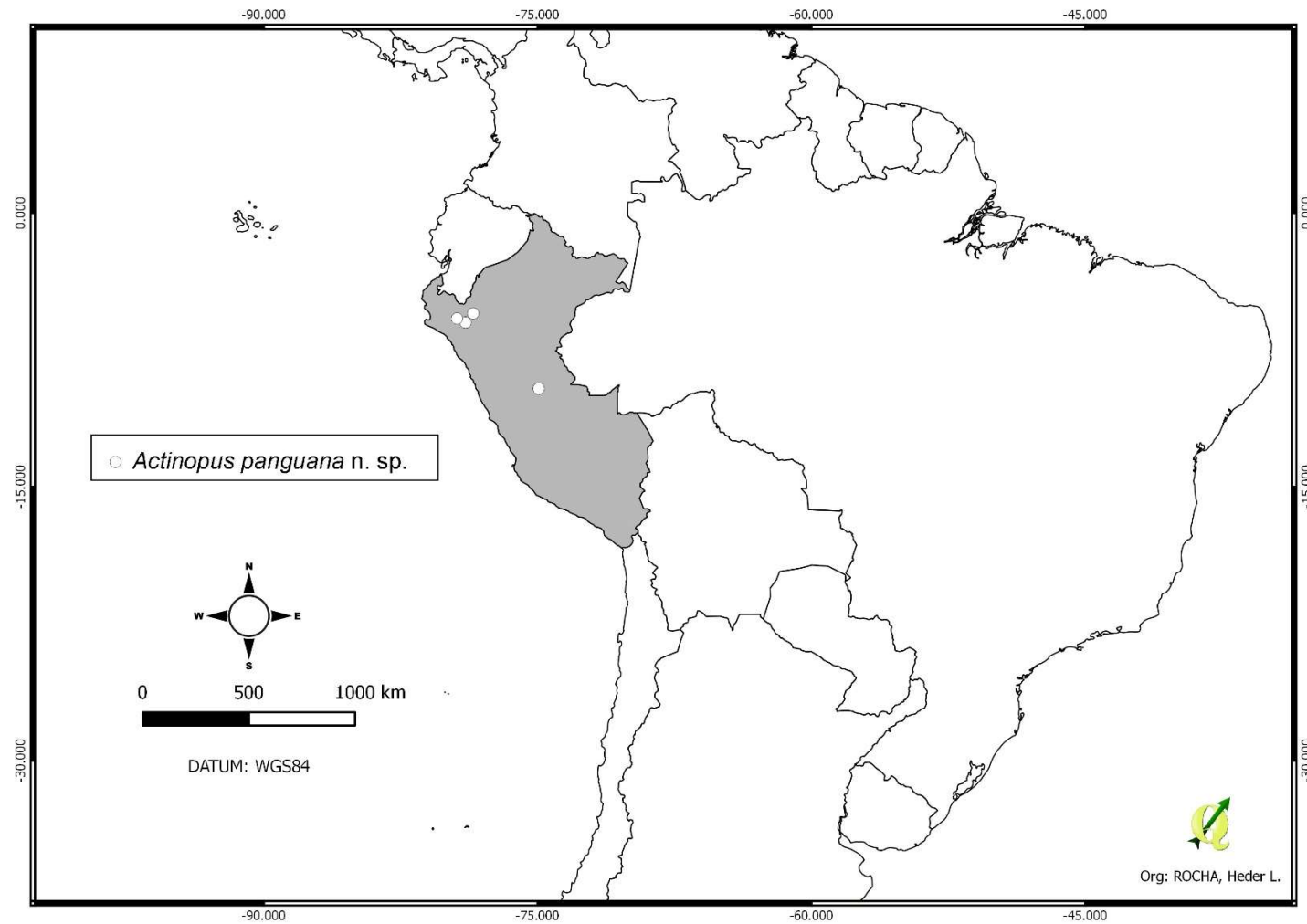
Map 11. Distribution map of *Actinopus robustus* O. Pickard-Cambridge, 1892, *Actinopus guajara* n. sp., *Actinopus palmar* n. sp., *Actinopus lomalinda* n. sp., *Actinopus concinnus* n. sp. and *Actinopus cucutaensis* (Mello-Leitão, 1941).



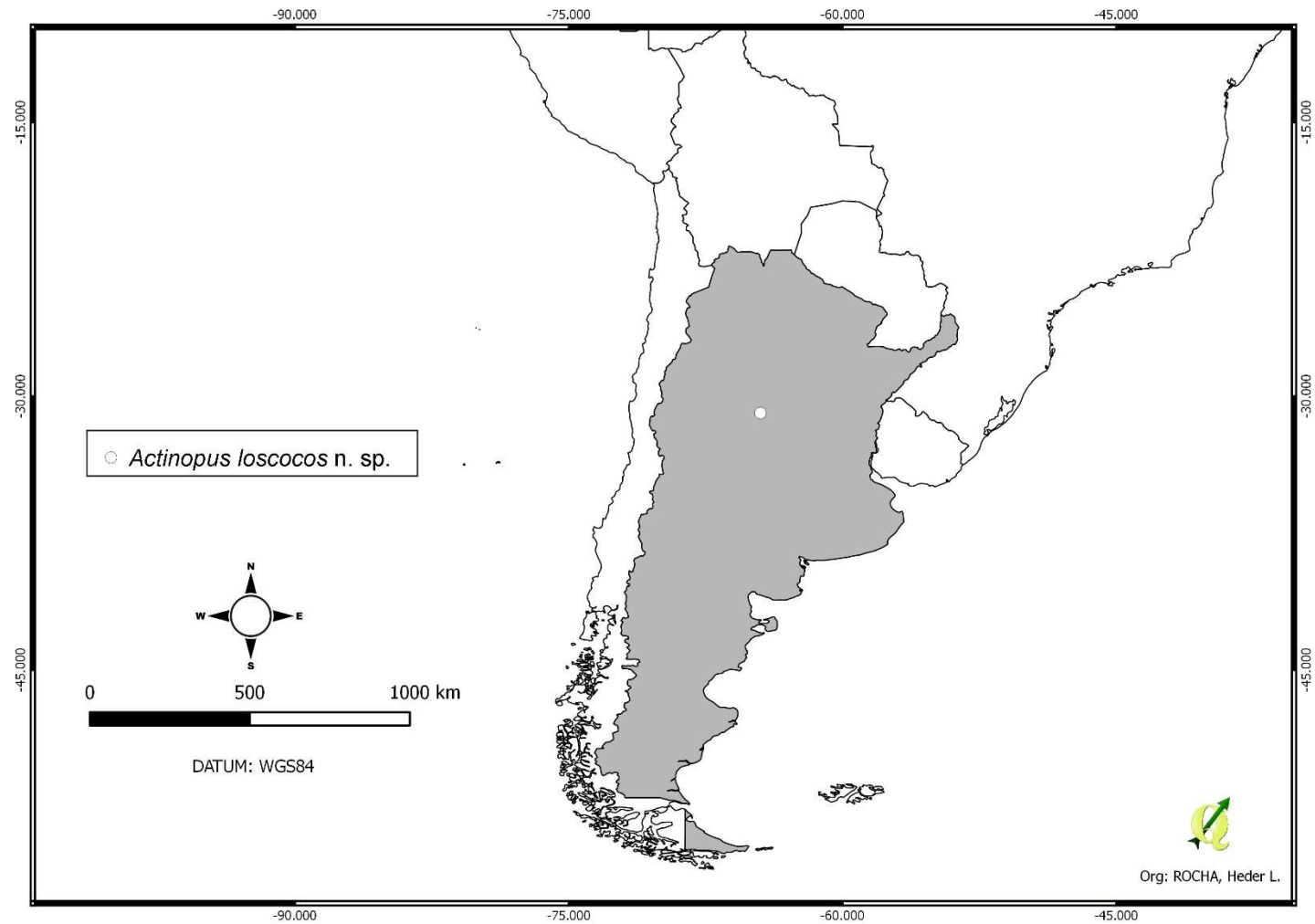
Map 12. Distribution map of *Actinopus jamari* n. sp.



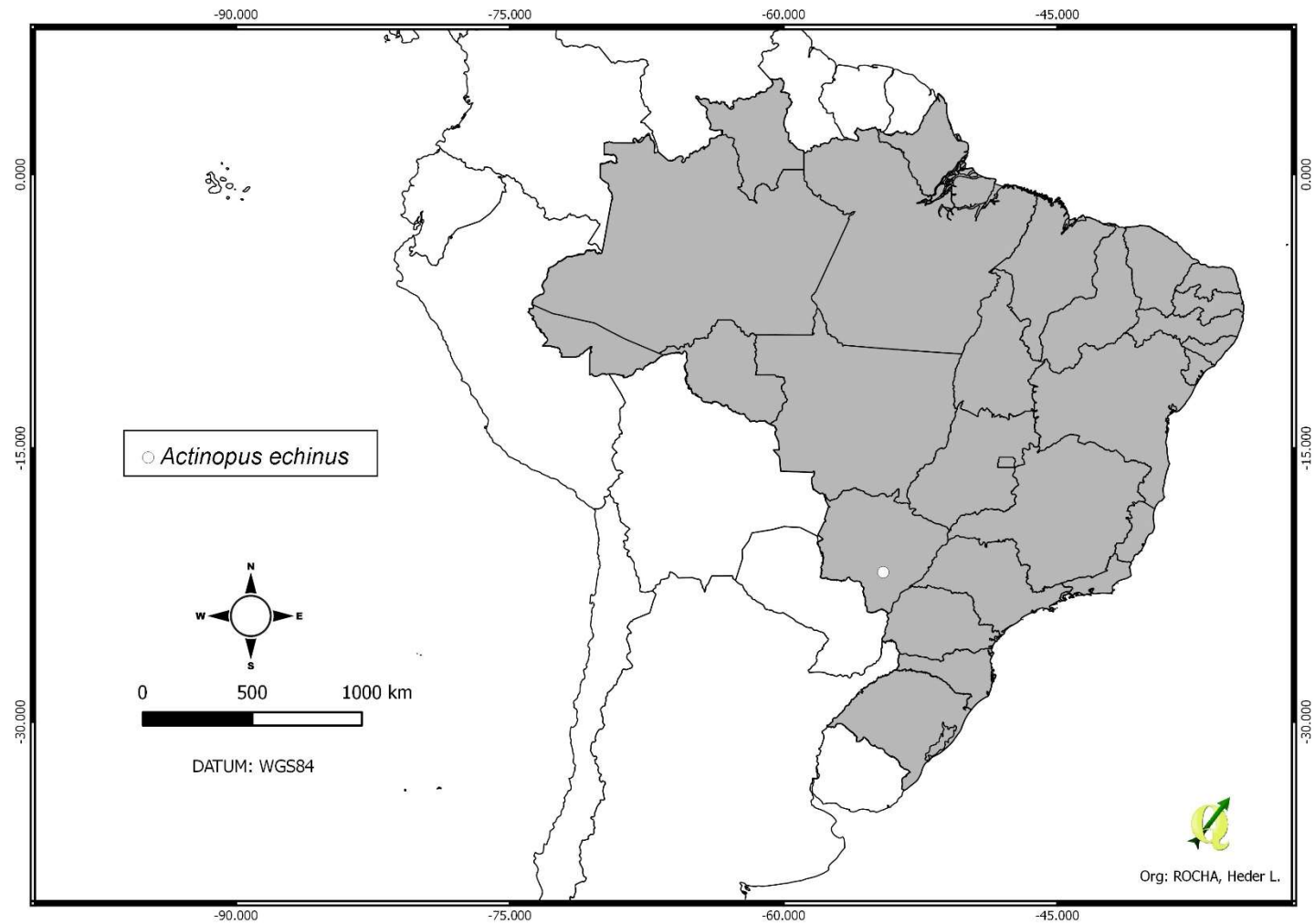
Map 13. Distribution map of *Actinopus apiacas* n. sp.



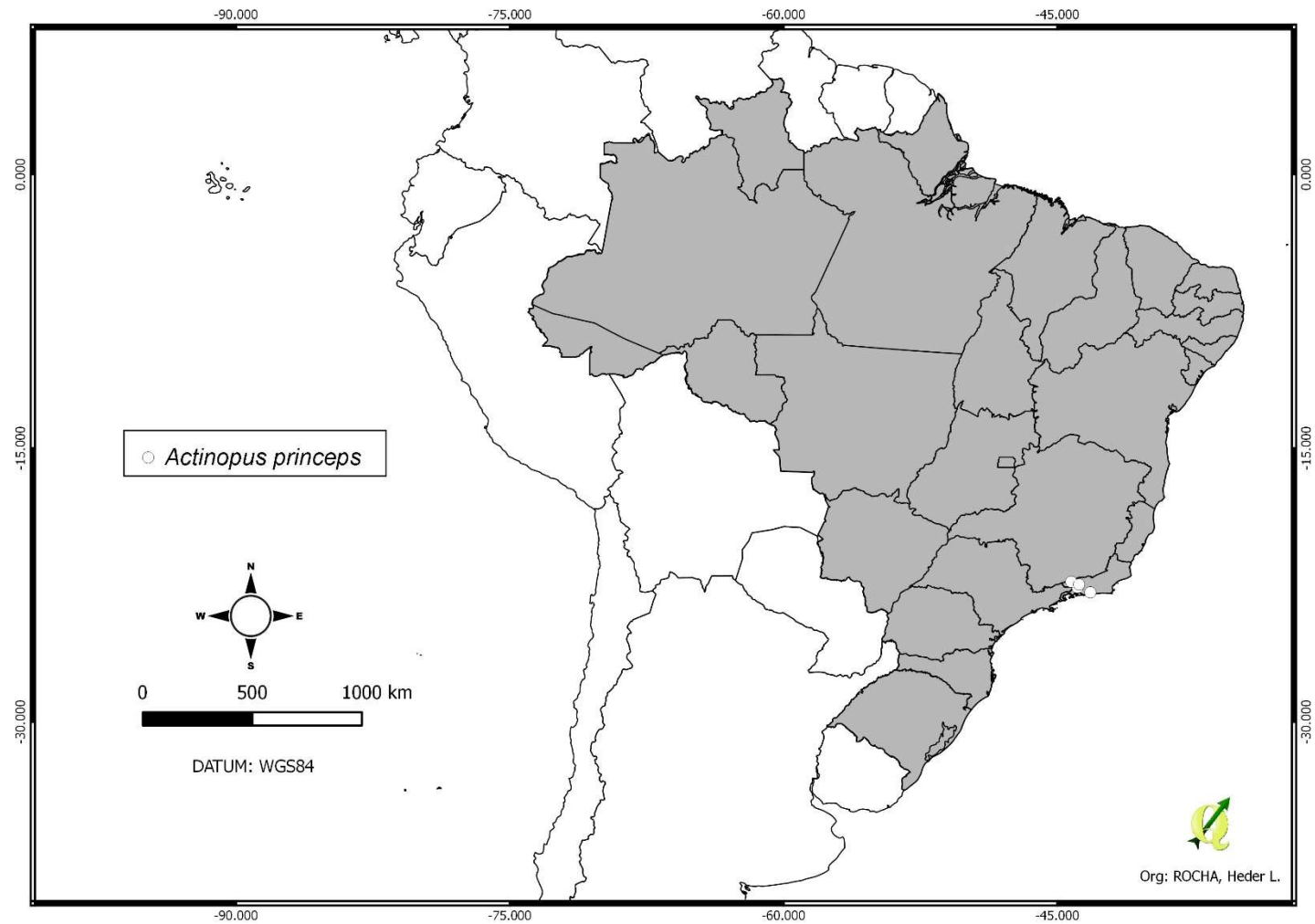
Map 14. Distribution map of *Actinopus panguana* n. sp.



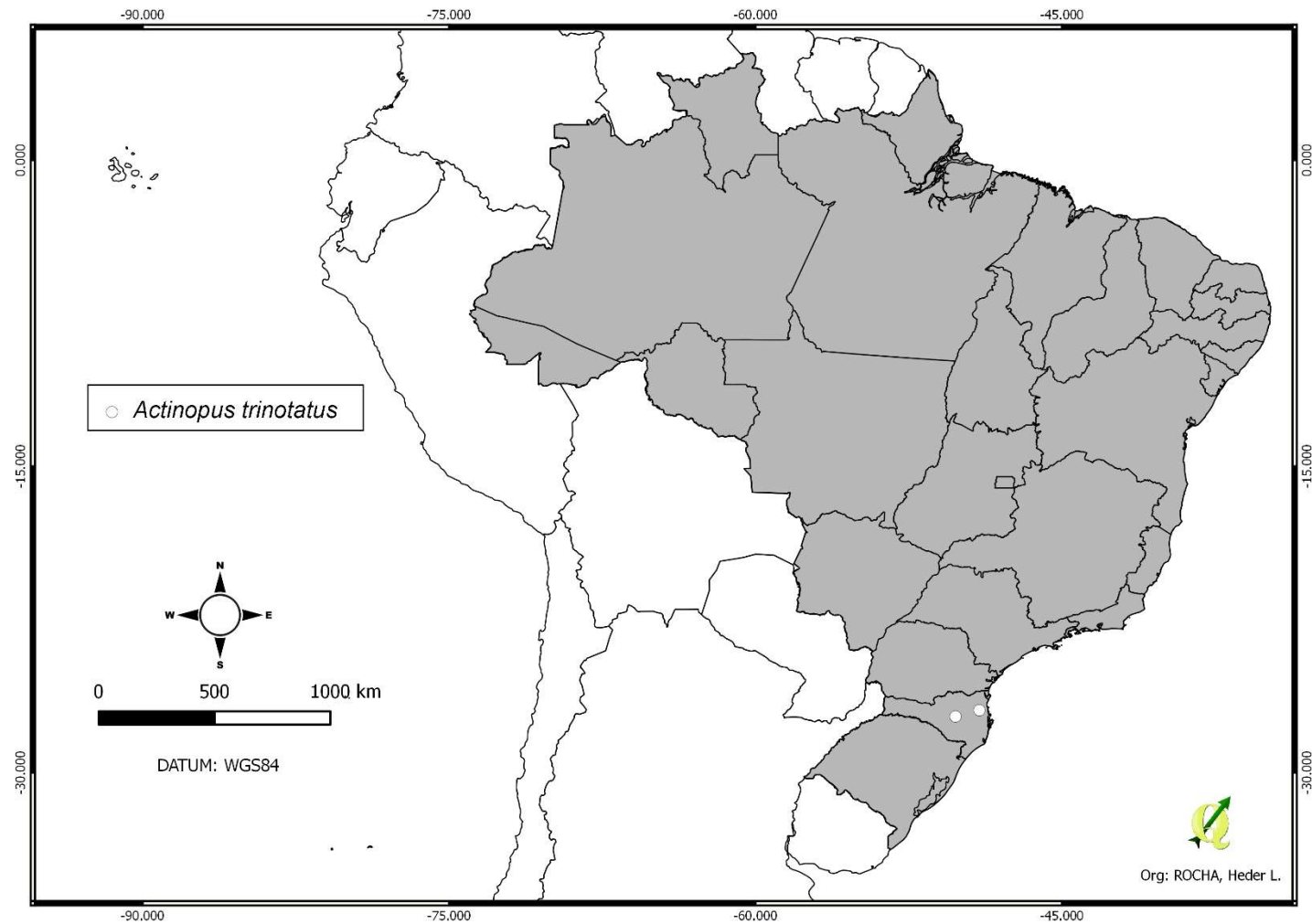
Map 15. Distribution map of *Actinopus loscocos* n. sp.



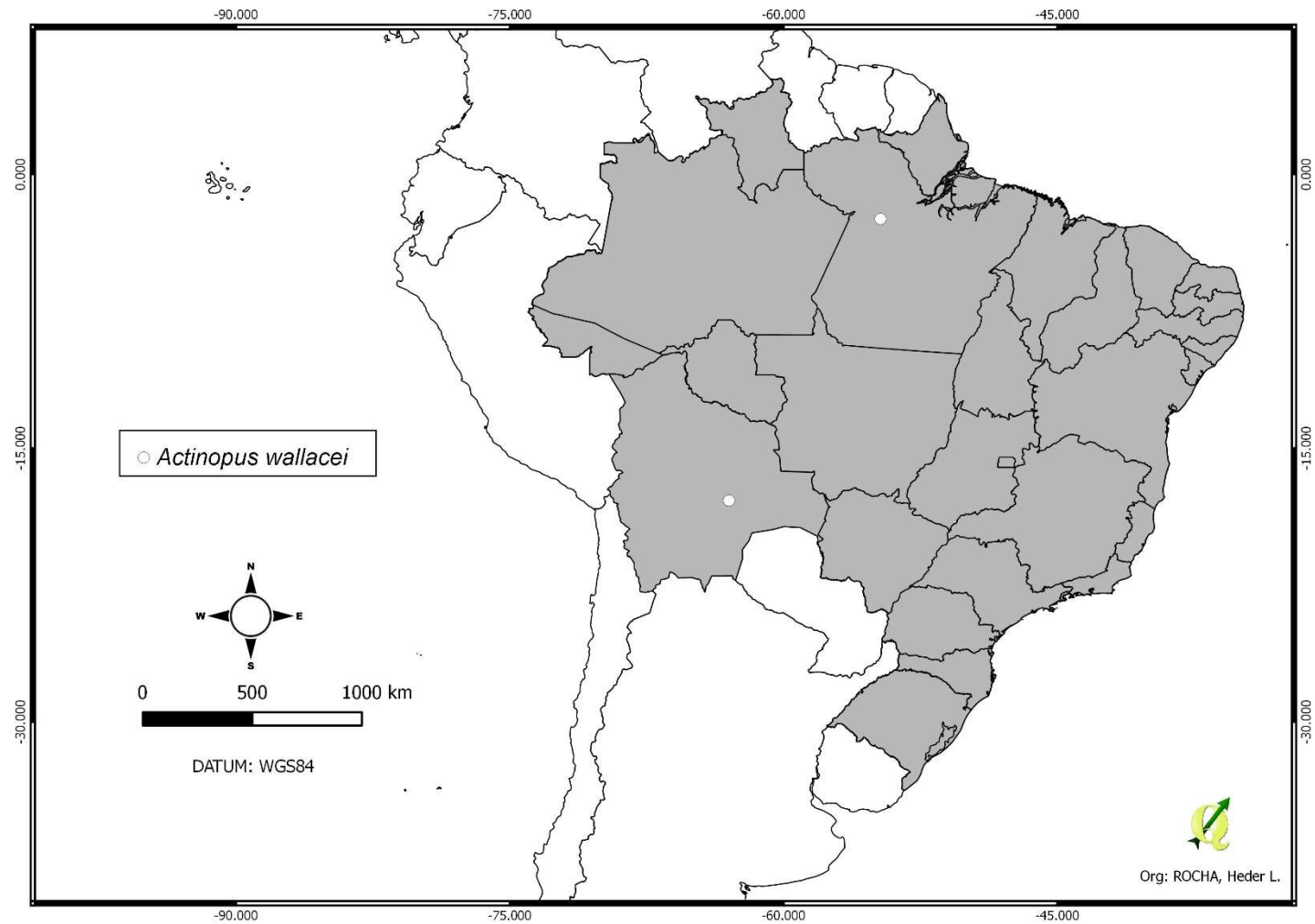
Map 16. Distribution map of *Actinopus echinus* Mello-Leitão, 1949.



Map 17. Distribution map of *Actinopus princeps* Chamberlin, 1917.



Map 18. Distribution map of *Actinopus trinotatus* Mello-Leitão, 1938.



Map 19. Distribution map of *Actinopus wallacei* Chamberlin, 1917.

**CAPÍTULO II: FOUR NEW MOUSE SPIDER SPECIES (ARANEAE, MYGALOMORPHAE,
ACTINOPODIDAE, *MISSULENA*) FROM WESTERN AUSTRALIA**

Four new Mouse Spider species (Araneae, Mygalomorphae, Actinopodidae, *Missulena*) from Western Australia

Laura Tavares Miglio^{1,†}, Danilo Harms^{2,3,4,‡},
Volker Wilhelm Framenau^{4,3,2,§}, Mark Stephen Harvey^{3,2,5,6,7,|}

1 Laboratório de Aracnologia, Museu Paraense Emílio Goeldi, Caixa Postal 399, 66017-970 Belém, PA, Brazil **2** School of Animal Biology, The University of Western Australia, 35 Stirling Highway, Crawley, Western Australia 6009, Australia **3** Department of Terrestrial Zoology, Western Australian Museum, Locked Bag 49, Welshpool DC, Western Australia 6986, Australia **4** Phoenix Environmental Sciences Pty Ltd, 1/511 Wanneroo Road, Balcatta, Western Australia 6021, Australia **5** School of Natural Sciences, Edith Cowan University, Joondalup, Western Australia 6027, Australia **6** Division of Invertebrate Zoology, American Museum of Natural History, 79th Street @ Central Park West, New York, New York 10024–5192, USA **7** Department of Entomology, California Academy of Sciences, Golden Gate Park, San Francisco, California 94103–3009 USA

† <http://zoobank.org/3D46F4E6-6525-47E5-AD08-E90D9CA6F6AC>

‡ <http://zoobank.org/7BABB8FF-8CFF-4E2C-ACDE-3E5614685C55>

§ <http://zoobank.org/9D67C6B0-37C2-4009-BD30-D02C4136F562>

| <http://zoobank.org/FF5EBAF3-86E8-4B99-BE2E-A61E44AAEC2C>

Corresponding author: Laura Tavares Miglio (lauramiglio@gmail.com)

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<http://zoobank.org/148429B0-C477-4B3C-B24A-DDC55BD2769D>

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Abstract

Four new species of the Mouse Spider genus *Missulena* Walckenaer, 1805 (family Actinopodidae) are described from Western Australia based on morphological features of adult males. *Missulena leniae* sp. n. (from the Carnarvon and Yalgoo biogeographic regions), *Missulena mainae* sp. n. (Carnarvon), *Missulena melissae* sp. n. (Pilbara) and *Missulena pinguipes* sp. n. (Mallee) represent a broad spectrum of morphological diversity found in this genus and differ from other congeners by details of the male copulatory bulb, colour patterns, eye sizes, leg morphology and leg spination. Two of the species, *M. pinguipes* sp. n. and *M. mainae* sp. n., are characterised by swollen metatarsi of the fourth legs in males, a feature not previously recorded in the family. A key to males of all named *Missulena* species from Australia is presented and allows their identification based on external morphology.

Keywords

Biodiversity, Gondwanan fauna, systematics, taxonomy, trapdoor spiders

Introduction

The mygalomorph spider family Actinopodidae Simon, 1892 has a southern Gondwanan distribution with species found in the Neotropical and Australasian regions, specifically the tropical and temperate zones of Australia, South and Central America. The family includes 42 described species in three genera: the Neotropical *Actinopus* Perty, 1833 (27 described species), *Missulena* Walckenaer, 1805 from Australia and Chile (13 species), and the exclusively Chilean genus *Plesiolenia* Goloboff & Platnick, 1987 (2 species) (Platnick 2014).

Species belonging to *Missulena*, commonly referred to as Mouse Spiders, are amongst the most recognisable Australian arachnids, with males of *M. insignis* (O. Pickard-Cambridge, 1877), *M. langlandsi* Harms & Framenau, 2013, *M. occatoria* Walckenaer, 1805 and *M. reflexa* Rainbow & Pulleine, 1918 displaying conspicuous red fangs and cephalic areas. Adult males wander during the day, adding to their prominent status amongst naturalists and resulting in their frequent illustration in field guides (e.g. Brunet 1994; Brunet 2000; Mascord 1970). Not all species are colourful and the red markings can be reduced, e.g. in *M. hoggi* Womersley, 1943, or entirely absent as in *M. dipsaca* Faulder, 1955, *M. granulosa* (O. Pickard-Cambridge, 1869), *M. faulderi* Harms & Framenau, 2013, *M. rutraspina* Faulder, 1995 and *M. torbayensis* Main, 1996. Mouse spiders have also received attention due to the toxicity of their venom that appears to be similar in composition to that of Australian funnel-web spiders (family Hexathelidae); however, severe cases of envenomation are rare and not all species appear equally harmful (Herzig et al. 2008; Isbister 2004; Rash et al. 2000).

Several species, namely the type species *M. occatoria*, but also *M. granulosa* and *M. insignis*, were amongst the first spiders to be collected and described from Australia, resulting in a confusing taxonomic history because early type localities were not recorded (e.g. “New Holland” for the nominate species *M. occatoria*), old taxonomic descriptions were poor by modern standards, and some type specimens appear to be lost (Main 1985).

The first attempt towards a more integrated taxonomy (Womersley 1943) recognised six species, only four of which are known from both male and female specimens. Little taxonomic work was undertaken subsequently, with the description of *M. pruinosa* from the Northern Territory by Levitt-Gregg (1966). Main (1985) catalogued all species, summarised the taxonomic literature and provided preliminary distribution data. Her contribution stimulated several subsequent taxonomic papers, all adding additional species from Western Australia: *M. dipsaca*, *M. rutraspina* (both Faulder 1995b), *M. torbayensis* (Main 1996), and more recently *M. faulderi* and *M. langlandsi* (both Harms

and Framenau 2013). It was also after the publication of Main's (1985) catalogue that the first Chilean representative, *M. tussulena* Goloboff, 1994, was described.

In addition to taxonomic advances, the major phylogenetic treatises of Raven (1985) and Goloboff and Platnick (1987) developed a diagnosis of *Missulena* against other mygalomorph spiders: the anterior row of eyes is almost straight, the posterior median eyes are closer to the anterior lateral eyes than the posterior lateral eyes, the male pedipalps are shorter than the first leg, the patella of the first leg has robust spines, the sternum is rebordered, and the male pedipalp embolus is almost straight and thinner than that of other Actinopodidae.

Missulena currently has the highest species diversity in Western Australia where ten of the 12 Australian species occur, six of which are endemic to the state (Table 1). Recent large-scale environmental surveys conducted in Western Australia (e.g. Durrant et al. 2010; Main et al. 2000) have discovered additional morphospecies and confirm the previous notion that the diversity of this genus is underrepresented by the current taxonomy (Harms and Framenau 2013; Main 1985). It is clear, that the species of Australian *Missulena* known to date represent merely a fraction of the actual species diversity in this region.

The aim of this paper is twofold. Firstly, we add four new species of *Missulena* to the currently described Australian fauna, resulting in a total of 16 species (Table 1). These new species have very distinctive male morphologies and differ clearly from all other named species although the taxonomic status of some of these remains poorly resolved. Secondly, we provide a key that aids in the identification of males of all de-

Table 1. Distribution of *Missulena* species in Australia.

Species	Distribution	Remarks/selected source ¹
<i>M. bradleyi</i> Rainbow, 1914	Qld, NSW, Vic	Faulder (1995b), Raven and Seeman (2008), Walker et al. (2003)
<i>M. dipsaca</i> Faulder, 1995	NSW, Vic, SA, WA, Qld	Faulder (1995b)
<i>M. faulderi</i> Harms & Framenau, 2013	WA	Harms and Framenau (2013)
<i>M. granulosa</i> (O. Pickard-Cambridge, 1869)	WA	Faulder (1995a)
<i>M. hoggi</i> Womersley, 1943	WA	Womersley (1943)
<i>M. insignis</i> (O. Pickard-Cambridge, 1877)	WA	Faulder (1995a)
<i>M. langlandsi</i> Harms & Framenau, 2013	WA	Harms and Framenau (2013)
<i>M. leniae</i> sp. n.	WA	This study
<i>M. mainae</i> sp. n.	WA	This study
<i>M. melissae</i> sp. n.	WA	This study
<i>M. occatoria</i> Walckenaer, 1805	NSW, Qld, Vic, ACT, SA, NT, WA	Type locality unknown; Faulder (1995a)
<i>M. pinguipes</i> sp. n.	WA	This study
<i>M. pruinosa</i> Levitt-Gregg, 1966	Qld, WA, NT	Raven and Seeman (2008), Faulder (1995a)
<i>M. reflexa</i> Rainbow & Pulleine, 1918	SA	Womersley (1943)
<i>M. rutispina</i> Faulder, 1995	WA, SA, Vic	Faulder (1995b)
<i>M. torbayensis</i> Main, 1996	WA	Main (1996)

¹ published literature and university theses only

scribed species. A comprehensive key has not been published since Womersley (1943), although most species were described since then.

A comprehensive revision of *Missulena*, which includes a considerable undocumented fauna is beyond the scope of this study as it would require substantial funding and full-time commitment.

Material and methods

Morphology

Specimens used for morphological examination were preserved in 75% ethanol. Material was examined using a Leica MZ16A stereomicroscope. Digital images were taken using a Leica DFC 500 digital camera attached to a Leica MZ16A stereomicroscope controlled by the Leica Application Suite Version 3.7. This program allows the alignment of images taken at different focal planes (here ca. 20–40 images) and combines them into a single image. The images were edited and formatted in Adobe Photoshop, version CS5.

The specimens examined for this study are lodged in the Western Australian Museum, Perth, Australia (WAM). We also examined type material of all Australian *Missulena* that was available to us (Table 2).

The distribution data for species is described within the context of the Interim Biogeographic Regionalisation for Australia (IBRA) (Department of the Environment 2013).

All measurements are expressed in millimetres. The format of the descriptions and measurements follows Griswold and Ledford (2001), except for the spination pattern of the legs that is described according to Harms and Framenau (2013). Spine counts were taken from the right legs. The number of teeth on the claws is given as the formula “leg number: number of teeth of lateral claws/number of teeth of median claw”. The leg formula is given as the order of the leg lengths from longest to shortest. The leg “index” is given here as the leg length divided by carapace length and indicates the ratio of leg lengths versus carapace. The term “rasps” refers to the presence of short but strong conical spines on the patellae of all legs. The presence of such rasps on patella I is a potential synapomorphy for *Missulena* species (Goloboff and Platnick 1987).

The following abbreviations were used:

Morphology: (EL) embolar lamella, (DET) distal embolar tooth, (BEI) basal embolar intumescence, (d) dorsal, (v) ventral, (p) prolateral, (r) retrolateral, (PME) posterior median eyes, (PLE) posterior lateral eyes, (ALE) anterior lateral eyes, (AME) anterior median eyes, (MOQ) median ocular quadrangle, (OAL) ocular area length, (OAW) ocular area width, and (HF) height from the fovea.

Distribution: (NSW) New South Wales, (Qld) Queensland, (Vic) Victoria, (SA) South Australia, (WA) Western Australia, (ACT) Australian Capital Territory, (NT) Northern Territory.

Table 2. Type material of Australian *Missulena* examined for this study.

Species	Type	Location and repository
<i>M. bradleyi</i> Rainbow, 1914	holotype male allotype female	North Sydney (NSW) (AM KS6402), Willoughby (NSW) (AM KS6401)
<i>M. dipsaca</i> Faulder, 1995	holotype male	Junee (NSW) (AM KS9308)
<i>M. faulderi</i> Harms & Framenau, 2013	holotype male paratype male	Jinayri (WA) (WAM T97017), Jinayri (WA) (WAM T96132)
<i>M. langlandsi</i> Harms & Framenau, 2013	holotype male paratype male	Newman (WA) (WAM T115948), Newman (WA) (WAM T112076)
<i>M. pruinosa</i> Levitt-Gregg, 1966	holotype male	Groote Eylandt Island (NT) (AM KS6403)
<i>M. reflexa</i> Rainbow & Pulleine, 1918	holotype male	Keith (SA) (AM KS6404)
<i>M. torbayensis</i> Main, 1996	holotype male	Torbay (WA) (WAM 95/2)

Museums: (WAM) Western Australian Museum, (AM) Australian Museum.

The taxonomic key is based on a complete inventory of the available literature and examination of type material of many species. We have restricted this key to males because nine of the now 16 Australian described species are known from the male gender only; females remain unknown and are morphologically less distinct. We note that this key is preliminary because many additional unnamed species are present in collections, at least from Western Australia.

Systematics

Family Actinopodidae Simon, 1892

Missulena Walckenaer, 1805

Missulena Walckenaer, 1805: 8. Type species: *Missulena occatoria* Walckenaer, 1805, by monotypy.

Eriodon Latreille, 1806: 85. Type species: *Eriodon occatorius* Latreille, 1806, by monotypy.

Missulena melissae sp. n.

<http://zoobank.org/ABC49948-F3B9-4F6C-9C86-67B18B20605A>

http://species-id.net/wiki/Missulena_melissae

Figs 1A, 2A–J, 3A–J

Type material. AUSTRALIA: Western Australia: holotype male, Millstream-Chichester National Park, 6 km N. of Millstream Homestead, site PW11, 21°32'24.8"S, 117°03'25.2"E, 15 July 2003–11 October 2004, wet pitfall trap, Department of CALM staff (WAM T97323). Paratypes: 2 males, same data as holotype, except Corunna Downs, 52.5 km N. of Nullagine, Pilbara Biological Survey site NW11,

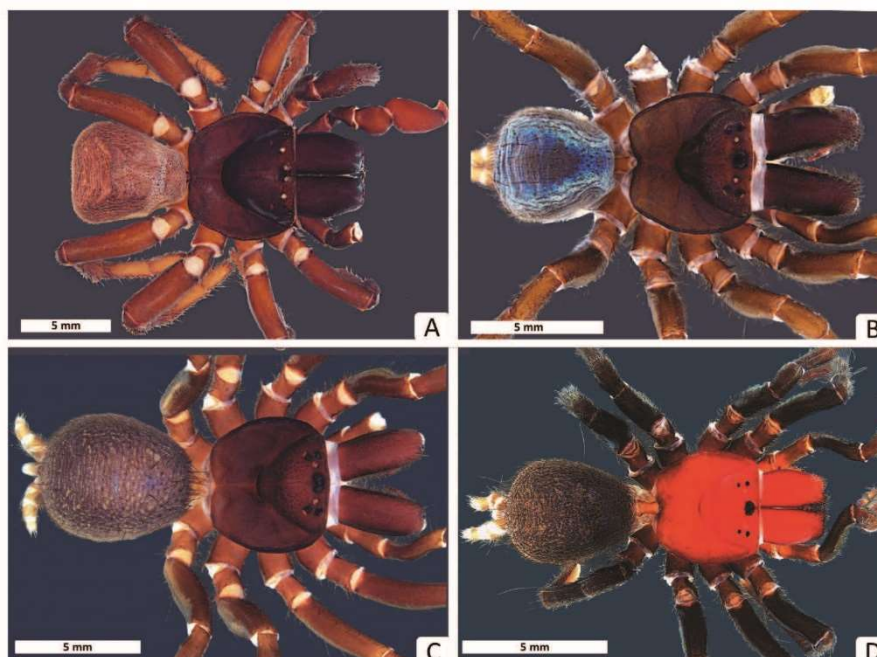


Figure 1. Dorsal habitus of species described in this paper: **A** *Missulena melissae* sp. n., holotype male from Millstream-Chichester National Park (WAM T97323) **B** *Missulena pinguipes* sp. n., holotype male from Digger Rocks (WAM T92331) **C** *Missulena leniae* sp. n., holotype male from Nanga Station, Shark Bay (WAM T96784) **D** *Missulena mainae* sp. n., holotype male from Quobba Station, Cape Cuvier (WAM T96782).

21°24'27.7"S, 120°04'16.7"E, 3 August 2003–20 October 2004, Department of CALM staff (WAM T120931).

Etymology. The specific epithet is a patronym in honour of Melissa Thomas, the third author's partner, for her continuing support of late-night arachnological endeavours.

Diagnosis. Males of *M. melissae* sp. n. differ from the two other species with a brown body colour, strongly-sclerotised rastellum with thick spines, smooth and glabrous chelicerae with prominent horizontal ridges and short claws (i.e. *M. faulderi* and *M. rutraspina*) by details of the bulb and somatic morphology: embolus short and with a distal tooth (exceeding length of the bulb and without distal tooth in *M. faulderi*), carapace length ca. 4 cm (3.5 cm in *M. rutraspina*), patella I–III with rasps (patella III only in *M. faulderi*), rastellum on a low mound (mound distinct in *M. faulderi*), inner row of cheliceral teeth divided (first six teeth fused in *M. faulderi*), and pedipalp patella and tibia swollen (much more slender in *M. faulderi*). Males of *M. rutraspina* differ in having a simple embolus tip without processes, a straight embolus, rasps on patella III only, rastellum on a distinct mound, inner row of cheliceral teeth with six spaced teeth, and pedipalp tibia and patella more slender. The female of *M. melissae* sp. n. is unknown.

Description. Adult male, based on holotype (WAM T97323). Medium-sized mygalomorph spider (total length 8.00).

Colour: carapace (Fig. 1A) dark reddish-brown, margins dark brown; eye region (Fig. 2B) dark brown, anterior median eyes on black tubercle; chelicerae (Fig. 3I) dark reddish-brown, fangs reddish-brown; abdomen (Fig. 1A) pale brown with a grey metallic spot in dorsal region; sternum (Fig. 3H) yellowish-brown, margins contoured dark yellowish-brown, sigillae yellowish-brown; labium (Fig. 3G) and maxillae (Fig. 3C) dark reddish-brown; legs (Figs 1A, 3A–B) yellowish brown, tarsi and metatarsi ventrally yellow; spinnerets (Fig. 3J) pale gray, spigots white.

Carapace: 3.81 long, 4.0 wide; clypeus 0.13; fovea 2.18; caput and eye region (Fig. 2A–C) laterally elevated, strongly arched; fovea (Fig. 2A, C) very deep, wide and strongly procurved, medially extending as triangular depression, pars cephalica smooth around the eyes and between the eyes and fovea, pars thoracica rugose with bands of fine, random fissures centered around fovea (Fig. 2C).

Eyes: OQ 3.61 times wider than long, occupying 1.12 of cephalic width; OAW 3.54; OAL 2.68; IPF 0.40; width of anterior eye group 2.95, with of posterior group 2.36, OQ length 0.81; PME 0.19; PLE 0.22; ALE 0.26; AME 0.22, AME on tubercle, 0.27 long, 0.62 wide; AME inter-distance 0.65; AME to ALE 1; AME to PME 0.40; PLE to ALE 0.55; PLE to PME 0.41; PME inter-distance 1.41; PME to ALE 0.55; eye region (Fig. 2B) with reduced setation although some setae present anterior to AME and between posterior eyes and fovea.

Chelicerae: 2.95 long, 1.54 wide; distally broad, diagonal, slightly conical; edges smoothly rounded; with weak transverse ridges which distally extend over entire length (Fig. 3I), without setae in area of transverse ridges but with ca. 60 short setae along inner margin of chelicera; rastellum developed, slightly pronounced, consisting of a sclerotised process with 3 strong conical spines and 12–14 disordered setae (Fig. 3I), 12–13 long setae extend forward from anterior margin of each chelicera and cover base of fang, setae largest on latero-ventral side; inner margin of cheliceral furrow with 3 rows of teeth (Fig. 3E); prolateral (inner) row with ca. 12 teeth, 3 proximal teeth fused together and the rest spaced; intermediate row with 9 proximal, spaced teeth; retrolateral (outer) row with 3 proximal, spaced teeth.

Maxillae: 1.86 long; 1.31 wide, longer than wide (Fig. 3C, D), with ca. 57 pointed cuspules along entire anterior margin, distally pointed and extended into a prominent heel.

Labium: 1.04 long, 0.77 wide; conical, ca. 20 pointed cuspules anteriorly (Fig. 3G); labiosternal suture developed as a shallow groove; a pair of sigilla near labiosternal suture (Fig. 3H), developed as irregular, poorly-defined patches.

Sternum: 2.27 long, 2.09 wide; oval and rebordered (Fig. 3H), with prominent setae, arranged irregularly but denser lateral to labium; 4 pairs of sigillae, anterior and second pair (anterior-posterior) smallest and poorly defined, third pair bigger than 2 anterior pairs and poorly defined, and posterior pair bigger than all others, roughly oval and well defined, 3 posterior sigillae slightly depressed.

Abdomen: 4 long, 3.54 wide; roughly oval (Fig. 3F); 4 spinnerets (Fig. 3J), PLS 0.72 long, 0.45 wide, apical segment domed; PMS 0.40 long, 0.13 wide.

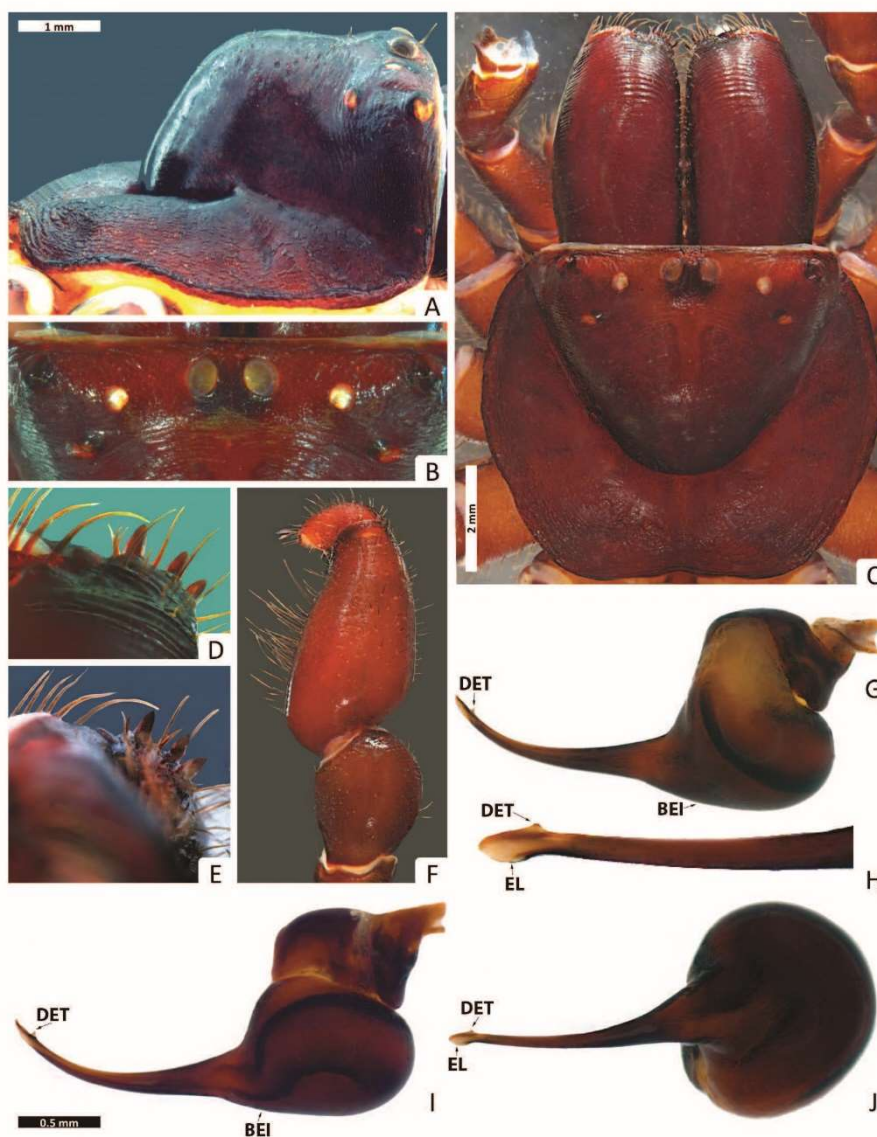


Figure 2. *Missulena melissae* sp. n., holotype male (WAM T97323): **A** carapace, lateral view **B** eye group, dorsal view **C** carapace, dorsal view **D** rastellum, dorsal view **E** same, ventral view **F** pedipalp, proventral view **G** bulb and embolus, retrolateral view **H** embolus, ventral view **I** bulb and embolus, prolateral view **J** same, ventral view. Arrows: (EL) embolar lamella, (DET) distal embolar tooth, and (BEI) basal embolar intumescence.

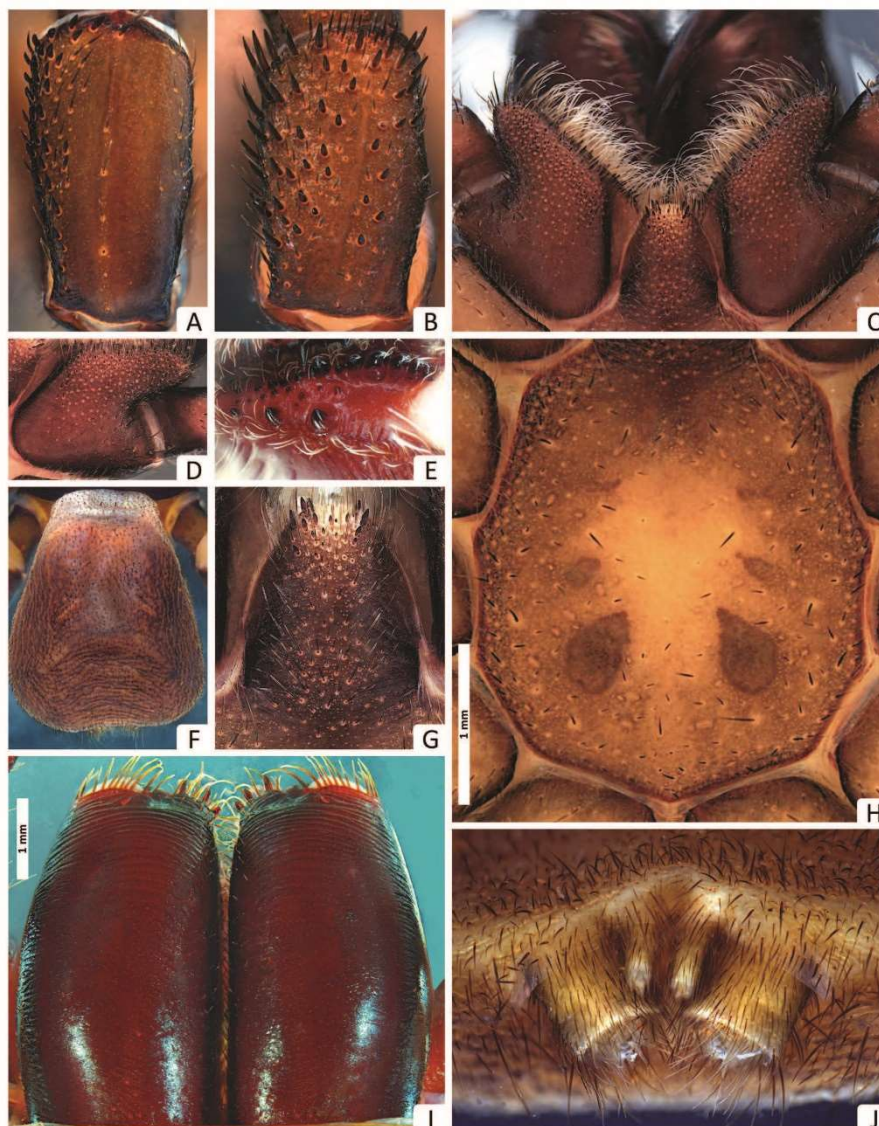


Figure 3. *Missulena melissae* sp. n., holotype male (WAM T97323): **A** patella II, dorsal view **B** patella III, dorsal view **C** coxae and labium of pedipalp, ventral view **D** coxae of pedipalp, ventral view **E** cheliceral groove, retroventral view **F** abdomen, dorsal view **G** labium, ventral view **H** sternum and sigillae, ventral view **I** chelicerae, dorsal view **J** spinnerets, ventral view.

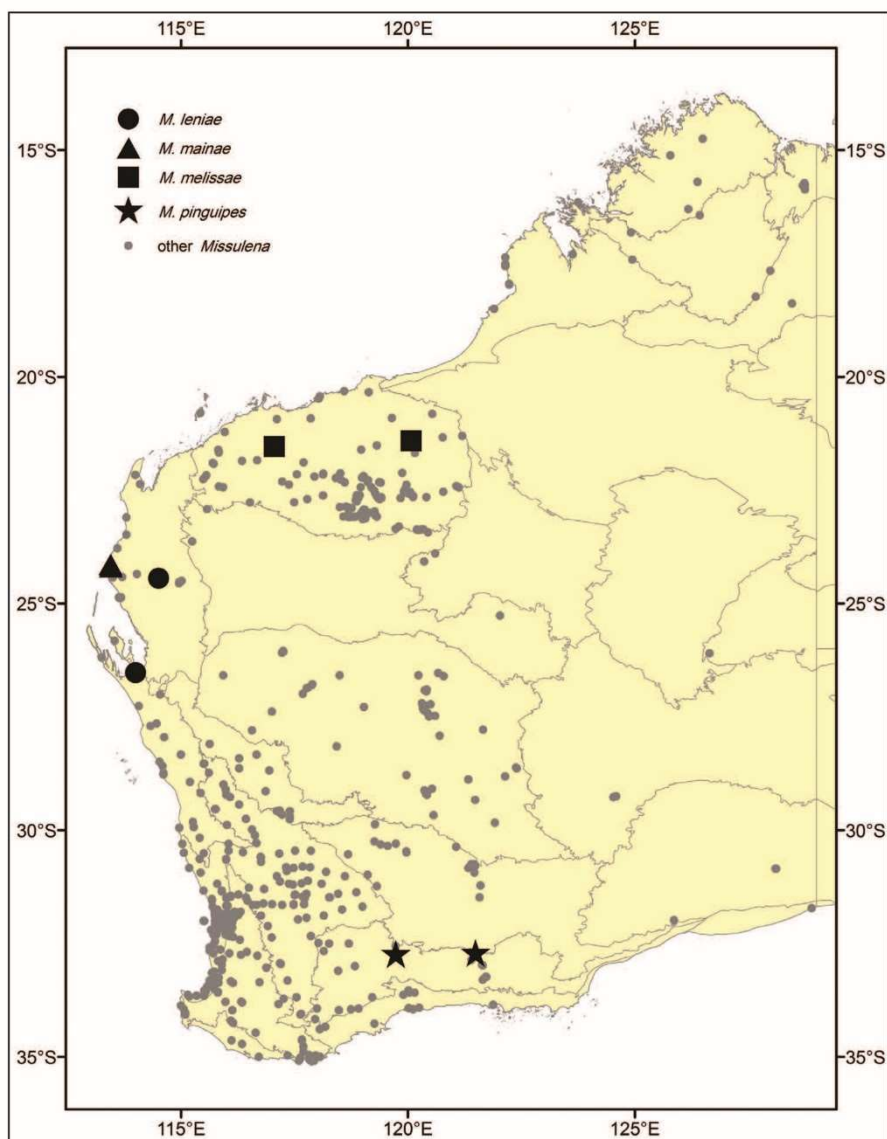


Figure 4. Distribution records of *Missulena* spp. in Western Australia.

Pedipalp: length of trochanter 0.85, femur 2.11, patella 0.33, tibia 0.66, tarsus 0.18; entire palp is aspinose, femur more than 3 times longer than tibia, tarsus terminally blunt (Fig. 2F); bulb pyriform and rather stout than globular (Fig. 2G, I–J), 2 strongly sclerotised sections connected by a velar median structure (“haematodocha”, Fig. 2G, I); bulb strongly twisted proventrally (Fig. 2I); embolus short, with an

intumescence in proximal region (BEI), a strong curvature in the duct in prolateral view, tapering and slightly twisted medially (Fig. 2I, J); embolus tip triangular, with a lamella (EL) well-developed and a prominent tooth (DET) in all views (Fig. 2G–J).

Legs: with few brown setae, ventral setae of tibiae and metatarsi generally much longer and thicker than dorsal setae and bent towards the exterior; dorsal, lateral and ventral setae of tibiae and metatarsi longer than the diameter of respective segment; preening comb distal in tarsi, very small and plain; metatarsi and tarsi I and II ascopulate, metatarsi and tarsi III and IV densely scopulate but in metatarsi, the length of scopula reaches only 80% of the segment length. Metatarsi I and II with ca. 23, 33 fine ventral setae distally, respectively. *Leg measurements:* Leg I: femur 2.37, patella 2.00, tibia 2.00, metatarsus 2.00, tarsus 1.00, total 9.37. Leg II: 2.25, 1.87, 1.62, 2.12, 1.00, 8.87. Leg III: 2.5, 1.62, 1.5, 2.37, 1.00, 9.00. Leg IV: 3.25, 1.62, 2.00, 2.25, 1.37, 10.5. Formula 4123.

Trichobothria: arranged in discontinuous rows; tibiae I–II with 2 rows of 2 in retrodorsal and prodorsal position, respectively; tibiae III with 2 rows of 2 in retrolaterodorsal and proximo-prodorsal position, respectively; tibiae IV with 2 rows, the first row with 2 in retrolatero-dorsal and the second row with 3 in proximolateral position; metatarsi with 5 in proximo-dorsal position, tarsi I+II with 4 and 6 medio-dorsally, respectively, III+IV with 5 and 6 medio-dorsally, respectively, all trichobothria in medio-dorsal position.

Leg spination: pedipalp aspinose; leg I: tibia rv0–0–0, v3–3–7, pv1–2–0, d0–0–0; metatarsus rv2–1–1, v2–3–5, pv0–0–0, d0–0–0; tarsus rv1–4–3, v2–7–3, pv2–2–2, d0–0–0; leg II: tibia rv0–0–0, v0–0–0, pv0–1–0, d0–0–0; metatarsus rv0–0–0, v0–0–0, pv0–0–0, d0–0–0; tarsus rv3–5–4, v1–2–2, pv1–3–2, d0–0–0; leg III: tibia rv0–0–0, v0–3–2, pv2–2–2, d2–1–3; metatarsus rv2–2–3, v0–0–0, pv3–3–4, d8–4–2; tarsus rv3–5–4, v0–0–1, pv1–3–4, d0–2–2; leg IV: tibia rv0–2–0, v2–4–4, pv1–1–2, d3–0–0; metatarsus rv1–3–2, v0–0–0, pv1–3–4, d0–0–1; tarsus rv4–9–13, v0–0–1, pv1–4–6, d0–0–2; patellae I and II with ca. 53 and 35 rasps, in 8 and 6 oblique rows prolatero-dorsally, respectively; patella III with ca. 59 rasps widespread in dorsal view (Fig. 4B); patella IV with 19 rasps, in 8 and 6 oblique rows prolatero-dorsally, median rows shorter than lateral rows and with less spines, distal spines forming an interrupted crown of spines in the border of the article (Fig. 4B).

Tarsal claws: leg I: 5–4/1; leg II: 6–6/1; leg III: 5–4/1; leg IV: 3–3/1; claws slightly shorter than spines of tarsi.

Variation in paratypes (N=2): total length 6.72–7.36; carapace 3.45 long, 3.90–4.36 wide; number of labial cuspules 14–16, maxillary cuspules 48–67; rastellum with 1–4 thick and conical spines.

Distribution. This species is known from the type locality Millstream-Chichester National Park and Corunna Downs in the Pilbara biogeographic region of Western Australia (Fig. 4).

Habitat. All specimens were collected in pitfall traps. The collecting sites were dominated by *Acacia* spp., with one site having a eucalypt over-storey (McKenzie et al. 2009).

***Missulena pinguipes* sp. n.**

<http://zoobank.org/4F164298-F7D9-43BC-900F-8B04985F0999>

http://species-id.net/wiki/Missulena_pinguipes

Figs 1B, 5A–J, 6A–K

Type material. AUSTRALIA: *Western Australia*: holotype male, Digger Rocks, 89.1 km SE. of Hyden (site DR10), 32°43'58"S, 119°44'03"E, 30 November 2006, dry pitfall trap, D. Kamien (WAM T92331). Paratypes: 4 males, same data as holotype (WAM T92332, T92333, T92334, T92336); 1 male, Exclamation Lake (site SG09B), 32°42'26"S, 121°29'31"E, 23–29 April 2002, dry pitfall trap, R. Teale, G. Harold, A. Sanders and P. Higgs (WAM T45910).

Etymology. The specific epithet is a Latin adjective referring to the swollen metatarsi IV of males (*pinguis*, fat; *pes*, foot).

Diagnosis. Males of *M. pinguipes* sp. n. differ from all other named species of the genus, except *M. mainae* sp. n. by the swollen metatarsus IV (Fig. 6K). They differ from *M. mainae* sp. n. by the brown carapace and chelicerae, which are red in the latter. Females of *M. pinguipes* sp. n. are unknown.

Description. Adult male, based on holotype (WAM T92331). Medium-sized mygalomorph spider (total length 5.00).

Colour: carapace (Fig. 5A, C) dark reddish-brown, margins dark brown; eye region (Fig. 5B) dark brown, anterior median eyes on black tubercle; chelicerae (Fig. 6I) dark reddish-brown, fangs reddish-brown; abdomen (Fig. 1B, 6F) iridescent blue with light blue longitudinal streaks; sternum (Fig. 6H) yellowish-brown, margins contoured dark yellowish-brown, sigillae yellowish-brown; labium and maxillae dark yellowish-brown (Fig. 6C, G); legs (Fig. 1B) yellowish-brown, tarsi and metatarsi ventrally yellow; spinnerets (Fig. 6J) pale gray, spigots white.

Carapace: 2.25 long, 2.37 wide; clypeus 0.17; fovea 0.71; caput and eye region (Fig. 5A) laterally elevated, strongly arched; fovea (Fig. 5C) very deep and strongly procurved, medially extending as triangular depression (Fig. 5C), pars cephalica with few granulations around the eyes and between the eyes and fovea, pars thoracica rugose with bands of fine, random fissures centered around fovea (Fig. 5C).

Eyes: OQ 3.5 times wider than long, occupying 0.83 of cephalic width; OAW 1.97; OAL 1.42; IPF 0.74; width of anterior eye group 1.35, with of posterior group 1.17, OQ length 0.38; PME 0.1; PLE 0.1; ALE 0.08; AME 0.1, AME on tubercle, 0.31 long, 0.41 wide; AME inter-distance 0.1; AME to ALE 0.47; AME to PME 0.11; PLE to ALE 0.22; PLE to PME 0.2; PME inter-distance 0.65; PME to ALE 0.27; eye region (Fig. 5B) with reduced setation although some setae present anterior to AME, between lateral eyes and between posterior eyes and fovea.

Chelicerae: 1.57 long, 0.82 wide; distally broad, diagonal, slightly conical; edges smoothly rounded; with weak transverse ridges which distally extend over entire length (Fig. 6I), without setae in area of transverse ridges but with ca. 30 setae along inner margin of chelicera; rastellum developed, pronounced, consisting of a sclerotised process with 9 strong conical spines and 18–22 disordered setae (Fig. 5D), 9 long setae

extend forward from anterior margin of each chelicera and cover base of fang; setae largest on latero-ventral side; inner margin of cheliceral furrow with 3 rows of teeth (Fig. 6E); prolateral (inner) row with ca. 6 teeth, all teeth spaced; intermediate row with 3 proximal, spaced teeth; retrolateral (outer) row with 3 proximal, spaced teeth; with 1 distal tooth.

Maxillae: 0.91 long; 0.71 wide, almost square (Fig. 6C, D), ca. 64 pointed cuspsules along entire anterior margin, distally pointed and extended into a prominent heel.

Labium: 0.51 long, 0.45 wide; conical, ca. 17 pointed cuspsules anteriorly (Fig. 6G); labiosternal suture developed as a shallow groove; a pair of sigilla near labiosternal suture (Fig. 6H), developed as irregular, poorly-defined patches.

Sternum: 1.37 long, 1.48 wide; oval and rebordered (Fig. 6H), with prominent setae, arranged irregularly but denser lateral to labium; 4 pairs of sigillae, anterior and second pair (anterior-posterior) smallest but well defined, third pair bigger than 2 anterior pairs and well defined, and posterior pair bigger than all others, roughly oval but not well defined, all sigillae slightly depressed.

Abdomen: 2.28 long, 2.00 wide; roughly oval (Fig. 6F); 4 spinnerets (Fig. 6J), PLS 0.85 long, 0.37 wide, apical segment domed; PMS 0.31 long, 0.14 wide.

Pedipalp: length of trochanter 0.74, femur 1.62, patella 0.92, tibia 1.51, tarsus 0.55; entire palp is aspinose, femur longer than tibia, tarsus terminally blunt (Fig. 5F); bulb pyriform and rather stout than globular (Fig. 5G–J), 2 strongly sclerotised sections connected by a velar median structure (“haematodocha”); bulb strongly twisted proventrally (Fig. 5G, I); embolus short, tapering and slightly twisted medially (Fig. 5H, J); embolus tip triangular, with a lamella well-developed (EL) and a very small tooth (DET) in ventral view (Fig. 5H, J).

Legs: with few brown setae, ventral setae of tibiae and metatarsi generally much longer and thicker than dorsal setae and bent towards the exterior; dorsal, lateral and ventral setae of tibiae and metatarsi longer than the diameter of respective segment; preening comb distal in tarsi, very small and plain; metatarsi I, II and III ascopulate; metatarsus IV swollen with dense scopula ventrally across entire length (Fig. 6K); tarsi I, II, III and IV ascopulate but with ca. 33, 24, 21, 17 fine ventral setae distally, respectively. *Leg measurements*: Leg I: femur 2.11, patella 1.03, tibia 1.51, metatarsus 1.44, tarsus 0.85, total 6.96. Leg II: 1.81, 0.96, 1.07, 1.33, 0.85, 6.03. Leg III: 1.74, 0.92, 1.14, 1.22, 0.77, 5.81. Leg IV: 1.85, 1.00, 1.25, 1.29, 0.74, 6.14. Formula 4123.

Trichobothria: arranged in discontinuous rows; tibiae I–II with 1 row of 3 in retrolateral and dorsal position, respectively; tibiae III–IV with 2 rows of 4–5 in dorsal position, first row situated prodorsally and second row situated retrodorsally; metatarsi with 2 in medio-dorsal position, tarsi I+II with 2, III+IV with 3, all trichobothria in medio-dorsal position.

Leg spination: pedipalp aspinose; leg I: tibia rv0–0–0, v3–3–7, pv0–0–0, d0–0–0; metatarsus rv2–1–1, v2–3–5, pv0–0–0, d0–0–0; tarsus rv1–1–1, v1–3–2, pv0–0–0, d0–0–0; leg II: tibia rv0–0–0, v3–3–4, pv0–0–0, d0–0–0; metatarsus rv0–1–0, v3–2–3, pv0–1–0, d0–0–0; tarsus rv0–2–0, v0–3–0, pv0–2–0, d0–0–0; leg III: tibia rv1–1–1, v2–2–5, pv0–0–1, d0–0–4; metatarsus rv0–2–0, v2–5–4, pv0–1–0, d0–0–3;

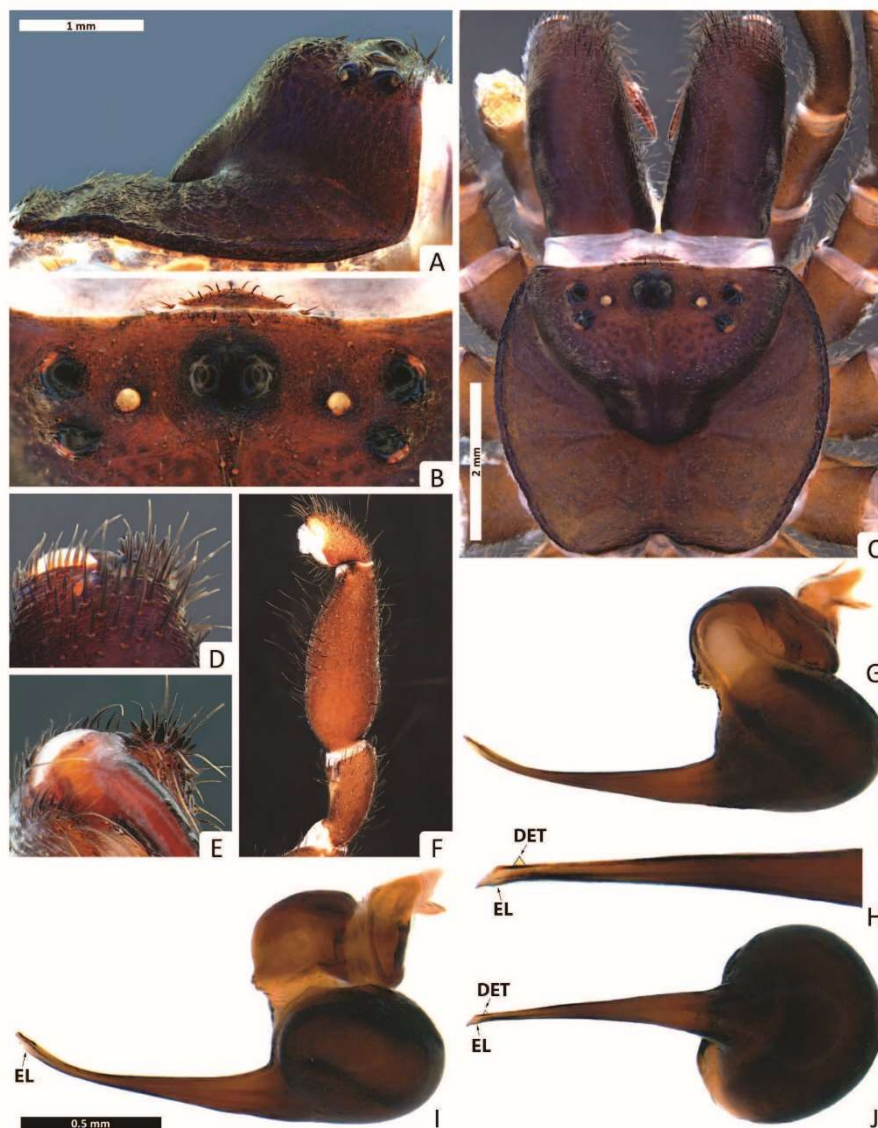


Figure 5. *Missulena pinguipes* sp. n., holotype male (WAM T92331): **A** carapace, lateral view **B** eye group, dorsal view **C** carapace, dorsal view **D** rastellum, dorsal view **E** same, ventral view **F** pedipalp, proventral view **G** bulb and embolus, retrolateral view **H** embolus with apical process depicted, ventral view **I** bulb and embolus, prolateral view **J** same, ventral view. Arrows: (EL) embolar lamella, and (DET) distal embolar tooth.

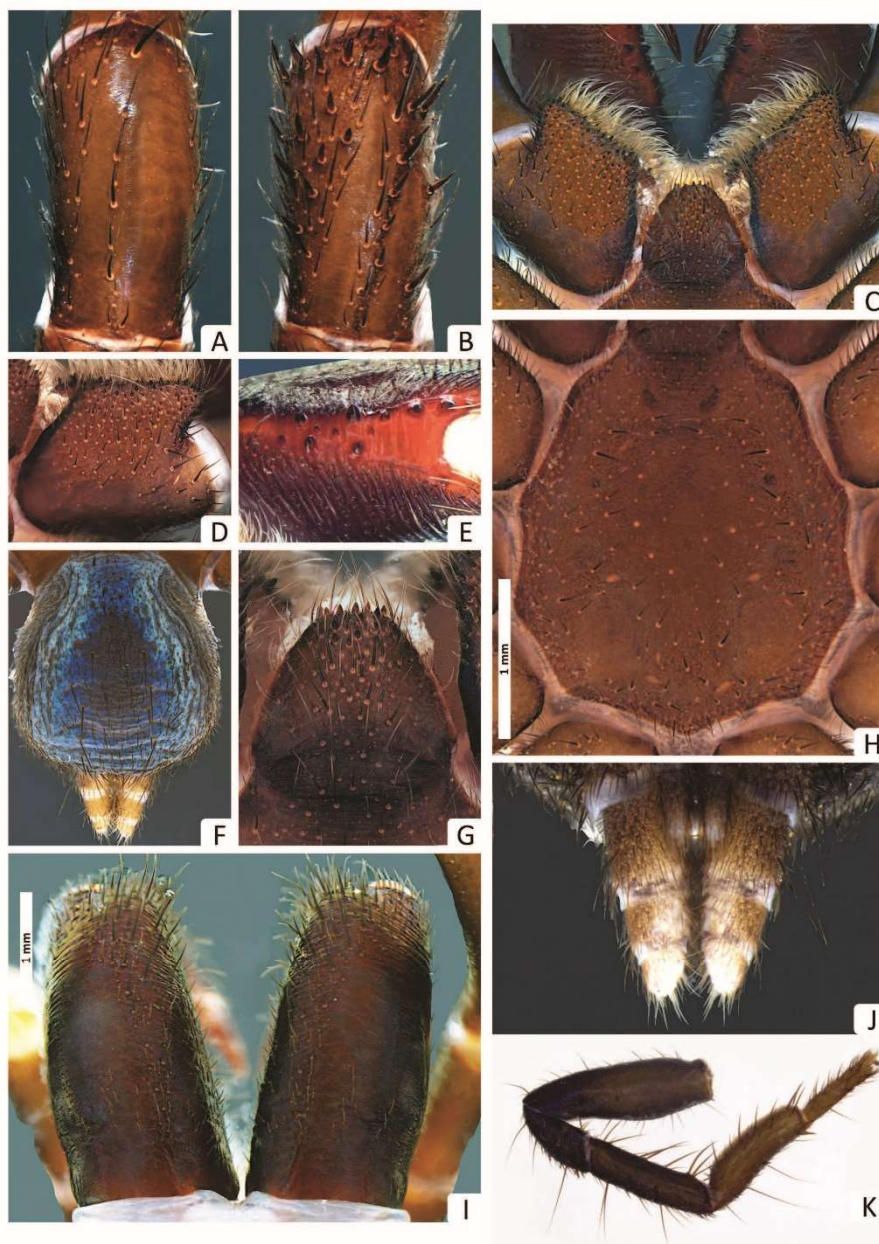


Figure 6. *Missulena pinguipes* sp. n., holotype male (WAM T92331): **A** patella II, dorsal view **B** patella III, dorsal view **C** coxae and labium of pedipalp, ventral view **D** coxae of pedipalp, ventral view **E** chelicer groove, retroventral view **F** abdomen, dorsal view **G** labium, ventral view **H** sternum and sigillae, ventral view **I** chelicerae, dorsal view **J** spinnerets, ventral view **K** right leg IV, prolateral view.

tarsus rv0–2–1, v1–3–3, pv0–0–1, d0–0–2; leg IV: tibia rv0–0–0, v3–5–4, pv0, d1–0–2; metatarsus rv2–3–1, v0–0–0, pv3–4–3, d0–1–2; tarsus rv1–2–1, v1–5–3, pv0, d0–0–2; patellae I, II without rasps and spines (Fig. 6A), patella III with ca. 26 rasps in 8 oblique rows dorsally, median rows shorter than lateral rows and with less spines, distal spines forming a interrupted crown of spines in the border of the article (Fig. 6B); patella IV with 6 rasps retrolaterally and 12 thick and short spines dorsally.

Tarsal claws: leg I: 3–2/2; leg II: 3–4/2; leg III: 4–3/2; leg IV: 1–2/ 0–1; claws slightly shorter than spines of tarsi.

Variation in paratypes (N=5): total length 4.00–5.00; carapace 1.77–2.37 long, 2.37–2.6 wide; number of labial cuspules 15–30, maxillary cuspules 40–66; rastellum with 6–11 thick and conical spines.

Distribution. This species is known only from the Mallee biogeographic region of southern Western Australia (Fig. 4).

Phenology and habitat preferences. The specimens were collected in pitfall traps in woodland habitats in either April or November.

***Missulena leniae* sp. n.**

<http://zoobank.org/BB6C03F8-C9BF-4F1E-A92C-2A7699408800>

http://species-id.net/wiki/Missulena_leniae

Figs 1C, 7A–J, 8A–J

Missulena sp. 4: Main et al. 2000: 285.

Type material. AUSTRALIA: Western Australia: holotype male, Nanga Station, site NA3, 26°31'20.9"S, 114°00'08.3"E, 12 May–3 August 1995, pitfall trap, N. Hall (WAM T96784). Paratype: 1 male, Mardathuna Station, site MR2, 24°26'35.7"S, 114°30'41.5"E, 25 May–26 August 1995, pitfall trap, N. Hall (WAM T96785).

Etymology. The specific epithet is a patronym in honour of the second author's daughter, Leni Elise Harms.

Diagnosis. Males of *Missulena leniae* sp. n. differ from other small species (carapace < 4 mm) without red colouration on chelicerae and carapace by the weak rastellum without conical spines (elevated and with conical spines in *M. faulderi*, *M. melissae* and *M. rutraspina*), the presence of granulations on carapace and chelicerae (except *M. pinguipes* and *M. torbayensis*), the presence of long setae on the chelicerae (absent in *M. faulderi*, *M. melissae* and *M. rutraspina*), patella III with rasps (all patellae in *M. torbayensis*), pars cephalica dark brown (black in *M. dipsaca*) and abdomen with metallic blue lines (lacking in *M. dipsaca*). Females of *M. leniae* sp. n. are unknown.

Description. Adult male, based on holotype (WAM T96784). Medium-sized mygalomorph spider (total length 6.81).

Colour: carapace (Figs 1C, 7A, C) dark reddish-brown, margins dark brown; eye region (Fig. 7B) dark reddish-brown, anterior median eyes on black tubercle; chelicerae (Fig. 8I) dark reddish-brown, fangs reddish-brown; abdomen (Fig. 8F) pale grey

with few light blue longitudinal streaks; sternum (Fig. 8H) yellowish-brown, margins contoured dark yellowish-brown, sigillae yellowish-brown; labium and maxillae dark red-yellowish-brown (Fig. 8C, G); legs (Fig. 1C) yellowish-brown, tarsi and metatarsi ventrally pale yellowish-brown; spinnerets (Fig. 8J) pale gray, spigots white.

Carapace: 2.63 long, 3.18 wide; clypeus 0.15; fovea 1.06; caput and eye region (Fig. 7B) laterally elevated, strongly arched; fovea (Fig. 7C) very deep and strongly procurved, medially extending as a very deep triangular depression; carapace with numerous large granulations, widespread over carapace and dorsally on chelicerae; weaker on pars thoracica, with bands of fine, random fissures centered around fovea (Fig. 7C).

Eyes: OQ 2.89 times wider than long, occupying 1.34 of cephalic width; OAW 2.4; OAL 1.62; IPF 0.91; width of anterior eye group 1.57, with of posterior group 1.45, OQ length 0.54; PME 0.14; PLE 0.14; ALE 0.20; AME 0.16, AME on tubercle, 0.31 long, 0.59 wide; AME inter-distance 0.11; AME to ALE 0.40; AME to PME 0.14; PLE to ALE 0.20; PLE to PME 0.25; PME inter-distance 0.77; PME to ALE 0.22; eye region (Fig. 7B) with reduced setation although some setae present anterior to AME, anterior ALE and between posterior eyes and fovea.

Chelicerae: 2.04 long, 0.95 wide; distally broad, diagonal, slightly conical; edges smoothly rounded; with transverse ridges which distally extend over entire length and many strong granulations widespread in dorsal view (Fig. 8I), with ca. 22 long setae widespread in inner area of transverse ridges and with more than 70 short setae along inner margin of chelicera; rastellum (Fig. 7D) poorly developed, weakly pronounced, consisting of a sclerotised process with 2 strong conical spines and 9–10 disordered setae, 9 long setae extend forward from anterior margin of each chelicera and cover base of fang, setae largest on latero-ventral side; inner margin of cheliceral furrow with 3 rows of teeth (Fig. 8E); prolateral (inner) row with ca. 9 teeth, all teeth spaced; intermediate row with 4 proximal, spaced teeth; retrolateral (outer) row with 3 proximal, spaced teeth.

Maxillae: 1.25 long; 0.93 wide, longer than wide (Fig. 8C, D), ca. 86 pointed cusps along entire anterior margin, distally pointed and extended into a prominent heel.

Labium: 0.63 long, 0.61 wide; conical, ca. 12 pointed cusps anteriorly (Fig. 8G); labiosternal suture developed as a shallow groove; a pair of sigilla near labiosternal suture (Fig. 8H), developed as irregular, very small and poorly-defined patches.

Sternum: 1.95 long, 1.72 wide; oval and rebordered (Fig. 8H), with prominent setae, arranged irregularly but denser lateral to labium; 4 pairs of sigillae, anterior pair very small, irregular and undefined; second pair (anterior-posterior) smallest but well defined; third pair bigger than 2 anterior pairs and well defined; and posterior pair bigger than all others, roughly oval but not well defined; 3 posterior sigillae slightly depressed.

Abdomen: 3.31 long, 3.04 wide; roughly oval (Fig. 8F); 4 spinnerets (Fig. 8J), PLS 1.22 long, 0.40 wide, apical segment domed; PMS 0.29 long, 0.15 wide.

Pedipalp: length of trochanter 0.75, femur 2.54, patella 1.09, tibia 1.90, tarsus 0.81; entire palp is aspinose, femur longer than tibia, tarsus terminally blunt (Fig. 7F); bulb pyriform and rather stout than globular (Fig. 7G, I–J), 2 strongly sclerotised sections connected by a velar median structure ("haematodocha"); bulb strongly twisted proventrally (Fig. 7G, I); embolus short, strong, tapering and slightly twisted medially

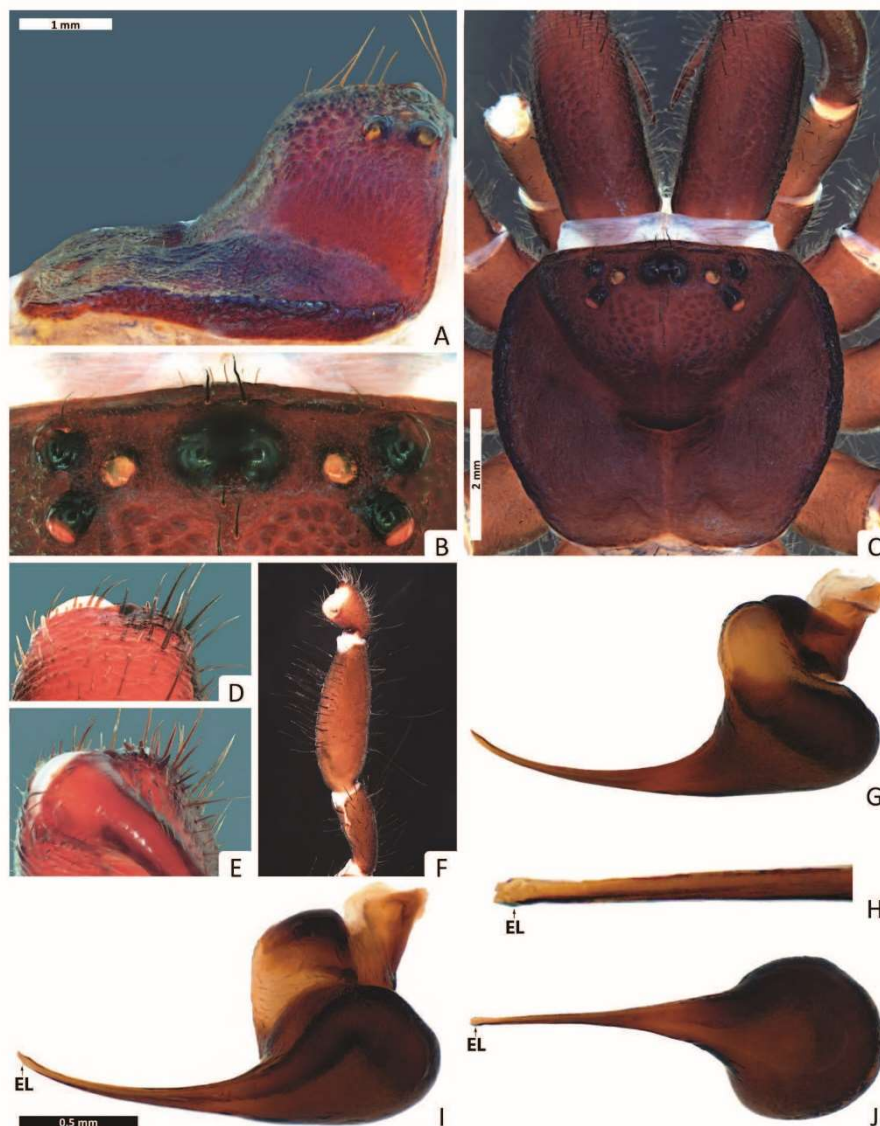


Figure 7. *Missulena leniae* sp. n., holotype male (WAM T96784): **A** carapace, lateral view **B** eye group, dorsal view **C** carapace, dorsal view **D** rastellum, dorsal view **E** same, ventral view **F** pedipalp, proventral view **G** bulb and embolus, retrolateral view **H** embolus, ventral view **I** bulb and embolus, prolateral view **J** same, ventral view. Arrows: (EL) embolar lamella.

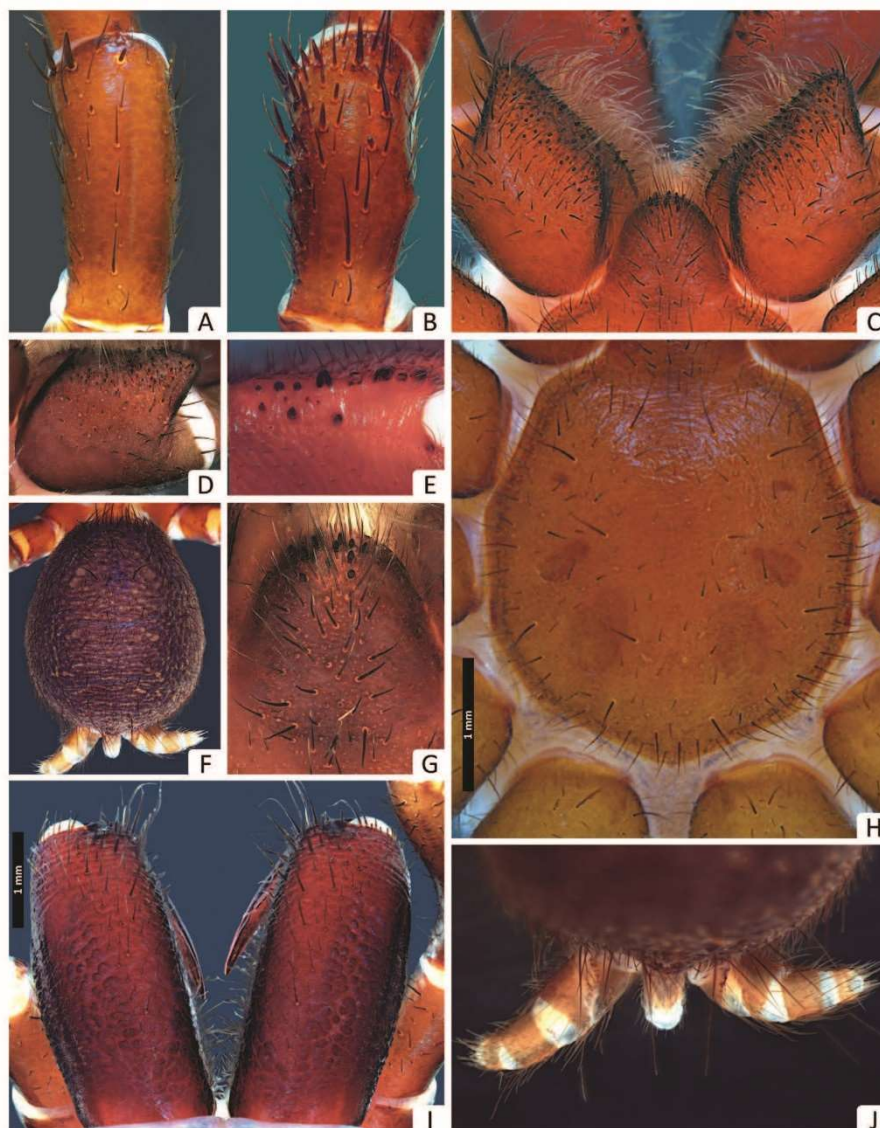


Figure 8. *Missulena leniae* sp. n., holotype male (WAM T96784): **A** patella II, dorsal view **B** patella III, dorsal view **C** coxae and labium of pedipalp, ventral view **D** coxae of pedipalp, ventral view **E** cheliceral groove, retroventral view **F** abdomen, dorsal view **G** labium, ventral view **H** sternum and sigillae, ventral view **I** chelicerae, dorsal view **J** spinnerets, dorsal view.

(Fig. 7H, J); embolus tip triangular in prolateral/retrolateral views and subquadrate in ventral view, with a small lamella (EL) and without tooth in ventral view, duct straight in proximal embolus (Fig. 7H, I).

Legs: with few brown setae, ventral setae of tibiae and metatarsi generally much longer and thicker than dorsal setae and bent towards the exterior; dorsal, lateral and ventral setae of tibiae and metatarsi longer than the diameter of respective segment; preening comb distal in tarsi, very small and plain; metatarsi I and II ascopulate; metatarsi III and IV with a weak scopula occupying 75% of segment length; tarsi I and II ascopulate, tarsi III and IV with a weak scopula along entire length; metatarsi I and II with ca. 57 and 47 fine ventral setae distally, respectively. **Leg measurements:** Leg I: femur 3.14, patella 1.33, tibia 1.81, metatarsus 2, tarsus 1.22, total 9.51. Leg II: 2.66, 1.33, 1.77, 1.88, 1.22, 8.88. Leg III: 2.85, 1.40, 1.74, 1.96, 1.29, 9.25. Leg IV: 3.14, 1.33, 2.03, 2.03, 1.37, 9.92. Formula 4123.

Trichobothria: arranged in discontinuous rows; tibiae I–III with 2 rows of 2 in prodorsal position and 3 in retrodorsal position, respectively; tibiae IV with 7 widespread in dorsal position; metatarsi with 3 in proximo-dorsal position; tarsi I–IV with 3, all trichobothria in a row in medio-dorsal position.

Leg spination: pedipalp aspinose; leg I: tibia rv0–0–2, v2–3–3, pv0–0–0, d0–0–0; metatarsus rv0–2–1, v2–2–3, pv0–0–0, d0–0–0; tarsus rv0–1–1, v2–4–3, pv0–0–0, d0–0–0; leg II: tibia rv0–0–2, v2–3–3, pv0–0–0, d0–0–0; metatarsus rv0–1–2, v0–4–3, pv0–0–0, d0–0–0; tarsus rv0–2–0, v3–2–4, pv0–0–0, d0–0–0; leg III: tibia rv0–0–3, v0–2–7, pv0–0–2, d2–0–10; metatarsus rv1–1–2, v0–0–0, pv1–1–1, d1–1–3; tarsus rv1–3–2, v0–1–2, pv0–0–0, d0–1–2; leg IV: tibia rv0–0–0, v3–3–4, pv0–0–1, d1–1–2; metatarsus rv1–1–2, v0–0–0, pv1–2–3, d0–0–0; tarsus rv2–6–6, v1–3–2, pv0–0–0, d0–0–2; patellae I with ca. 7 rasps in 3 proximal oblique rows dorsally, patellae II with 1 rasp (Fig. 8A), patella III with ca. 16 rasps and 4 spines in 8 oblique rows dorsally, median rows shorter than lateral rows and with less rasps/spines, distal rasps/spines forming an interrupted crown of rasps/spines in the border of the article (Fig. 8B); patella IV with 4 rasps retrolaterally and 8 thick and short spines prodorsally.

Tarsal claws: leg I: 6–5/3; leg II: 4–5/3; leg III: 3–2/1; leg IV: 2–2/1; claws slightly shorter than spines of tarsi.

Variation in paratype (N=1): total length 4.90; carapace 2.63 long, 2.54 wide; number of labial cuspules 58–70, maxillary cuspules 14; rastellum with 4–4 thick and conical spines.

Distribution. This species is currently known from two sites located in the Carnarvon and Yalgoo biogeographic regions of Western Australia (Fig. 4).

Phenology and habitat preferences. The two specimens were collected in pitfall traps between May and August. They were listed as *Missulena* sp. 4 in a survey of mygalomorph spiders of the southern Carnarvon Basin by Main et al. (2000). The two sites are dominated by *Banksia* and eucalypt mallee woodland (site NA3), or *Acacia aneura* (site MR2) over stable but sandy substrates (Burbidge et al. 2000, Appendix A; Wyrwoll et al. 2000).

***Missulena mainae* sp. n.**

<http://zoobank.org/FA26CB3C-43A2-4DA7-AFD9-AC84E3366B1D>

http://species-id.net/wiki/Missulena_mainae

Figs 1D, 9A–J, 10A–K

Missulena sp. 2: Main et al. 2000: 285.

Type material. AUSTRALIA: *Western Australia*: holotype male, Cape Cuvier, Quobba Station, site CU6, 24°08'20.4"S, 113°26'43.9"E, 31 May–25 August 1995, pitfall trap (WAM T96782). Paratypes: 2 males, Cape Cuvier, Quobba Station, site CU5, 24°11'34.0"S, 113°27'17.4"E, 27 September–2 October 1994, dry pitfall trap, P. West et al. (WAM T96781); 3 males, same data, 29 May–25 August 1995, N. Hall (WAM T96783).

Etymology. This species is named in honour of Barbara York Main in recognition of her substantial contributions to arachnology. She also was the first to recognize this taxon as a distinctive new species (Main et al. 2000).

Diagnosis. Males of *Missulena mainae* sp. n. differ from all other species by the uniformly red dorsal coloration of the carapace (pars cephalica and thoracica red; Figs 2D, 10C). Males share with *M. pinguipes* sp. n. the presence of a swollen metatarsus IV, but the character is less pronounced in *M. mainae* (Fig. 10K).

Description. Adult male, based on holotype (WAM T96782). Medium-sized mygalomorph spider (total length 7.90).

Colour: carapace (Fig. 9C) pale red, margins pale red; eye region (Fig. 9B) pale red, anterior median eyes on black tubercle; chelicerae (Fig. 10I) pale red, fangs dark red; abdomen (Fig. 10F) pale grey with little spots of blue and light gray longitudinal streaks; sternum (Fig. 10H) pale red, margins contoured pale brown, sigillae pale red and spots pale brown; labium (Fig. 10G) and maxillae pale red; legs (Fig. 1D) brown, coxae and trochanter pale brown; spinnerets (Fig. 10J) pale gray, spigots white.

Carapace: 2.59 long, 2.77 wide; clypeus 0.09; fovea 0.75; caput and eye region (Fig. 9A) laterally elevated, strongly arched in a rectangular form; fovea (Fig. 9C) very deep and strongly procurved, medially extending as triangular depression, pars cephalica with few granulations around the eyes, behind the eyes and between the eyes and fovea, pars thoracica with bands of fine, random fissures centered around fovea (Fig. 9C).

Eyes: OQ 3.06 times wider than long, occupying 1.26 of cephalic width; OAW 2.20; OAL 1.65; IPF 0.80; width of anterior eye group 1.40, with of posterior group 1.25, OQ length 0.45; PME 0.10; PLE 0.13; ALE 0.11; AME 0.16, AME on tubercle, 0.24 long, 0.42 wide; AME inter-distance 0.07; AME to ALE 0.44; AME to PME 0.22; PLE to ALE 0.17; PLE to PME 0.13; PME inter-distance 0.79; PME to ALE 0.16; eye region (Fig. 9B) with reduced setation although some setae present anterior to AME, between lateral eyes and between posterior eyes and fovea.

Chelicerae: 1.42 long, 0.88 wide; distally broad, diagonal, slightly conical; edges smoothly rounded; without transverse ridges (Fig. 10I), with 2 lines of dorsal setae,

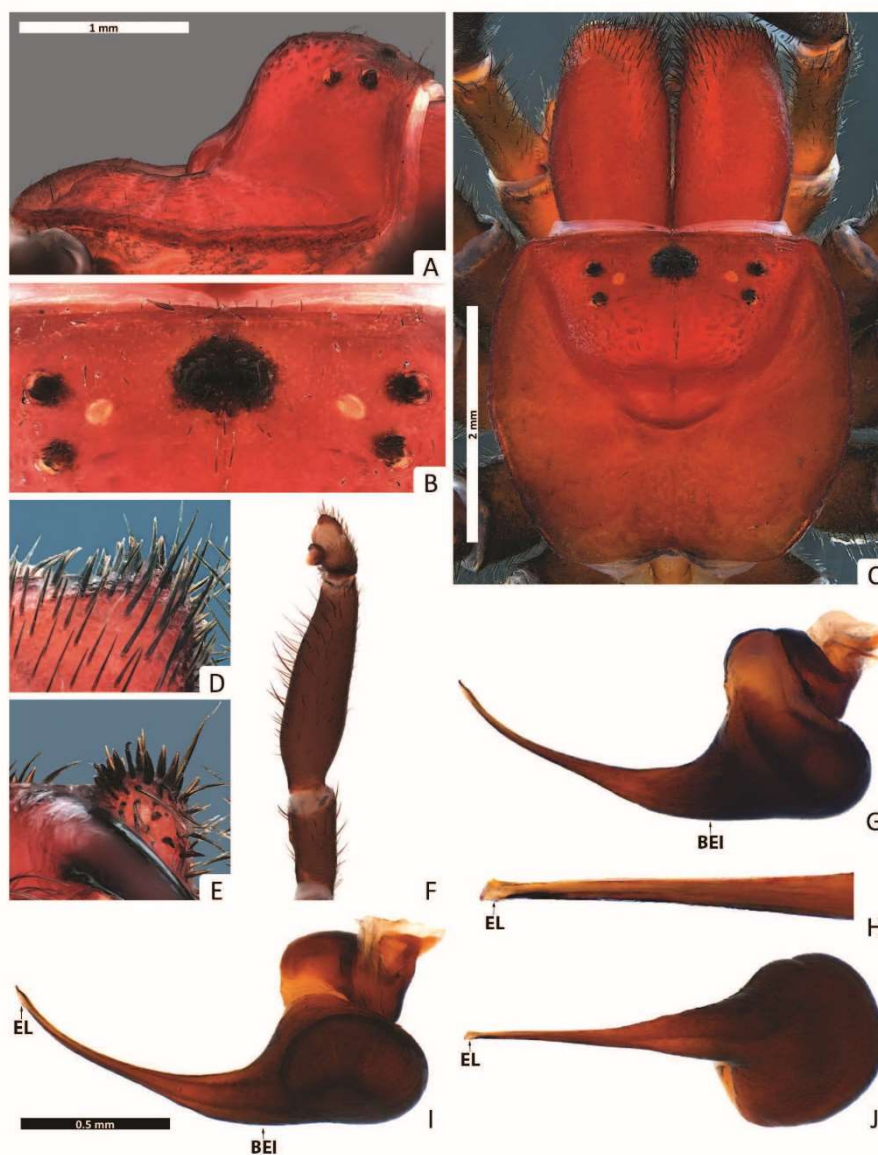


Figure 9. *Missulena mainae* sp. n., holotype male (WAM T96782): **A** carapace, lateral view **B** eye group, dorsal view **C** carapace, dorsal view **D** rastellum, dorsal view **E** same, ventral view **F** pedipalp, proventral view **G** bulb and embolus, retrolateral view **H** embolus, ventral view **I** bulb and embolus, prolateral view **J** same, ventral view. Arrows: (EL) embolar lamella, and (BEI) basal embolar intumescence.

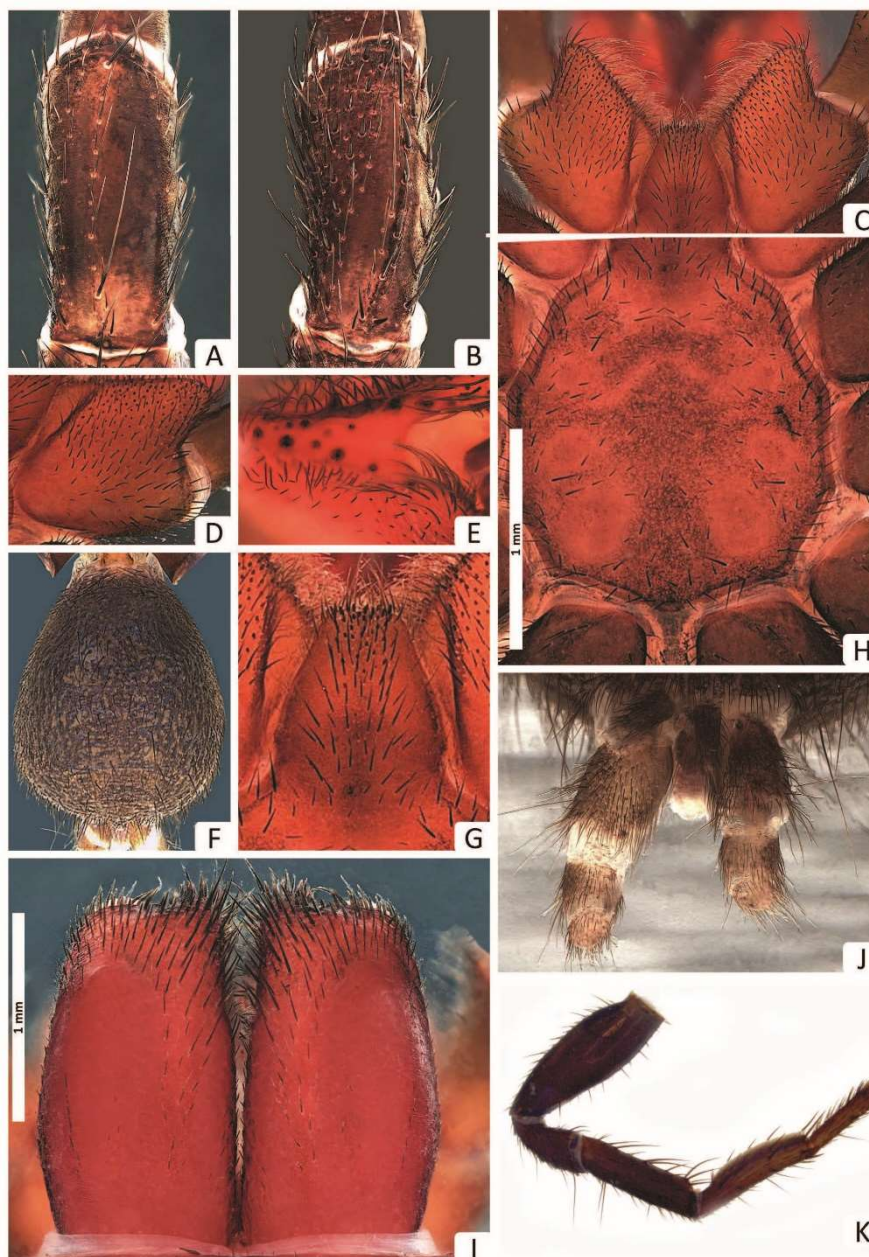


Figure 10. *Missulena mainae* sp. n., holotype male (WAM T96782): **A** patella II, dorsal view **B** patella III, dorsal view **C** coxae and labium of pedipalp, ventral view **D** coxae of pedipalp, ventral view **E** chelicer groove, retroventral view **F** abdomen, dorsal view **G** labium, ventral view **H** sternum and sigillae, ventral view **I** chelicerae, dorsal view **J** spinnerets, ventral view **K** right leg IV, prolateral view.

prolateral with ca. 28 and retrolateral with ca. 15; with ca. 30 setae along inner margin of chelicera; rastellum (Fig. 9D, E) developed, pronounced, consisting of a sclerotised process with 11 strong conical spines and 16 disordered setae, 13 long setae extend forward from anterior margin of each chelicera and cover base of fang, setae largest on latero-ventral side; inner margin of cheliceral furrow with 3 rows of teeth (Fig. 10E); prolateral (inner) row with ca. 6 teeth, all teeth spaced; intermediate row with 5 proximal, spaced teeth; retrolateral (outer) row with 4 proximal, spaced teeth; with 2 distal teeth.

Maxillae: 1.31 long; 1.0 wide, longer than wide, almost square (Fig. 10C, D), ca. 96 pointed cuspules along entire anterior margin, distally pointed and extended into a prominent heel.

Labium: 0.80 long, 0.62 wide; conical, ca. 31 pointed cuspules anteriorly (Fig. 10G); labiosternal suture developed as a shallow groove; a pair of sigilla near labiosternal suture (Fig. 10H), developed as irregular, poorly-defined patches.

Sternum: 1.82 long, 1.71 wide; oval and rebordered (Fig. 10H), with prominent setae, arranged irregularly but denser lateral to labium; 4 pairs of sigillae, anterior pair smallest than others and undefined, second pair (anterior-posterior) smallest but well defined, third pair bigger than 2 anterior pairs and well defined, and posterior pair bigger than all others, roughly oval but not well defined, all sigillae slightly depressed.

Abdomen: 3.31 long, 2.54 wide; roughly oval (Fig. 10F); 4 spinnerets (Fig. 10J), PLS 1.00 long, 0.40 wide, apical segment domed; PMS 0.34 long, 0.15 wide.

Pedipalp: length of trochanter 1.0, femur 2.27, patella 1.0, tibia 2.09, tarsus 0.63; entire palp is aspinose, femur longer than tibia, tarsus terminally blunt (Fig. 9F); bulb pyriform and rather stout than globular (Fig. 9G–J), 2 strongly sclerotised sections connected by a velar median structure (“haematodocha”); bulb strongly twisted proventrally (Fig. 9G, I); embolus short, with a proximal intumescence (BEL) in prolateral view, tapering and slightly twisted medially (Fig. 9G–J); embolus tip triangular in prolateral/retrolateral view and rectangular in ventral view, with a small lamella (EL) and without tooth (Fig. 9H).

Legs: with few brown setae, ventral setae of tibiae and metatarsi generally much longer and thicker than dorsal setae and bent towards the exterior; dorsal, lateral and ventral setae of tibiae and metatarsi longer than the diameter of respective segment; preening comb distal in tarsi, very small and plain; metatarsi I, II and III ascopulate, tarsi I, II, III and IV ascopulate but with ca. 20, 24, 17, 13 fine ventral setae distally, respectively; metatarsus IV with dense scopula ventrally across entire length. *Leg measurements*: Leg I: femur 1.55, patella 1.22, tibia 1.40, metatarsus 1.48, tarsus 0.88, total 6.55. Leg II: 2.22, 1.18, 1.44, 1.48, 1, 7.33. Leg III: 2.18, 1.18, 1.48, 1.48, 1.03, 7.37. Leg IV: 2.22, 1.29, 1.55, 1.55, 1.03, 7.66. Formula 4123.

Trichobothria: arranged in discontinuous rows; tibiae I–II with 2 proximal rows of 3 in retrodorsal and prodorsal position, respectively; tibiae III–IV with 2 rows of 2–3 in prodorsal/retrolateral position; metatarsi with 4 in mediodorsal position, tarsi I+II with 2, III+IV with 3, all trichobothria in mediodorsal position.

Leg spination: pedipalp aspinose; leg I: tibia rv1-0-1, v2-3-5, pv0-0-0, d0-0-0; metatarsus rv0-0-1, v2-6-5, pv1-1-2, d0-0-0; tarsus rv0-0-0, v3-6-7, pv0-0-0, d0-0-0; leg II: tibia rv1-0-0, v3-4-4, pv0-0-0, d0-0-0; metatarsus rv1-2-1, v2-5-4, pv1-1-2, d0-0-0; tarsus rv0-1-1, v3-4-8, pv0-1-0, d0-0-0; leg III: tibia rv0-0-0, v1-2-3, pv0-0-1, d0-1-7; metatarsus rv1-2-2, v4-6-8, pv1-0-1, d3-3-3; tarsus rv0-0-0, v1-4-4, pv0-0-1, d0-0-3; leg IV: tibia rv0-0-0, v1-2-2, pv0-0-1, d1-0-4; metatarsus rv1-2-2, v0-0-0, pv1-4-3, d2-1-3; tarsus rv1-1-3, v3-4-6, pv0-0-0, d0-0-2; patellae I, II without rasps and spines (Fig. 10A), patella III with ca. 28 rasps in 8 oblique rows dorsally, median rows shorter than lateral rows and with less spines, distal spines forming a interrupted crown of spines in the border of the article (Fig. 10B); patella IV with 12 rasps retrolaterally and 6 thick and short spines dorsally.

Tarsal claws: leg I: 3-2/2; leg II: 6-6/2; leg III: 6-5/3; leg IV: 5-5/3; claws slightly shorter than spines of tarsi.

Variation in paratypes (N=5): total length 5.27-6.09; carapace 2.36-2.63 long, 2.54-3.27 wide; number of labial cuspules 19-26, maxillary cuspules 86-108; rastellum with 10-13 thick and conical spines.

Distribution. This species is known only from Quobba Station in the Carnarvon biogeographic region of Western Australia (Fig. 4).

Phenology and habitat preferences. All specimens were collected in pitfall traps in a period between May and October. They were listed as *Missulena* sp. 2 in a survey of mygalomorph spiders of the southern Carnarvon Basin (Main et al. 2000). The two sites are dominated by *Acacia* over dune substrates (Burbidge et al. 2000, Appendix A; Wyrwoll et al. 2000).

Key to the described males of *Missulena* from Australia

(Distribution indicative as in Table 1; some species may have a wider occurrence.)

- | | | |
|---|--|------------------------------------|
| 1 | Chelicerae, and sometimes parts of the carapace with red markings..... | 2 |
| - | Chelicerae and carapace brown or black..... | 6 |
| 2 | Pars cephalica and thoracica uniformly red [WA: Carnarvon].... | <i>M. mainae</i> sp. n. |
| - | Pars cephalica red but pars thoracica black or brown | 3 |
| 3 | Pars cephalica uniformly red | 4 |
| - | Pars cephalica almost black but with traces of dark-red [WA: Southwest] | |
| | | <i>M. hoggi</i>¹ |
| 4 | Small species (carapace length < 3.0 mm); rastellum with fewer than 6 spines [WA: Pilbara] | <i>M. langlandsi</i> |
| - | Large species (carapace length > 4.0 cm); rastellum with more than 6 spines... | 5 |

¹ Faulder (1995a), in an unpublished thesis, considers *M. hoggi* and *M. granulosa*, mainly differentiated by the colour pattern of carapace and chelicerae, conspecific.

- 5 Abdomen dark yellow but with a lighter patch anteriorly [SA].....*M. reflexa*
 – Abdomen dark brown and without yellow patch
 ..*M. occatoria* [NSW, Qld, Vic, ACT, SA, NT, WA] and *M. insignis* [WA]²
- 6 Abdomen dorsally with pale colouration.....7
 – Abdomen dorsally lacks pale colouration, mainly brownish-grey or metallic
 blue8
- 7 Abdomen dorsally greyish-white; rastellum with 10 spines [WA: Kimberleys;
 NT; Qld].....*M. pruinosa*
 – Abdomen dorsally with a bluish-grey patch in anterior position but otherwise
 dark brown; rastellum with 5–6 spines [Qld, NSW, Vic]*M. bradleyi*
- 8 Outer surface of chelicerae with longitudinal ridges.....9
 – Outer surface of chelicerae smooth11
- 9 Patella II prolaterally with rasps; tip of embolus with process [WA: Pilbara] ...
*M. melissae* sp. n.
 – Patella II without rasps; tip of embolus without processes.....10
- 10 Proventral teeth of cheliceral furrow fused; embolus significantly longer than
 bulb and medially curved; patella III with fewer than 40 rasps [WA: Pil-
 bara]*M. faulderi*
 – Proventral teeth of cheliceral furrow not fused; embolus not significantly
 longer than bulb and straight; patella III with greater than 50 rasps [WA, SA,
 Vic]*M. rutraspina*
- 11 Length of carapace > 3.0 mm.....12
 – Length of carapace < 3.0 mm.....14
- 12 Rasps present on patella I.....13
 – Rasps absent on patella I; tarsus I ascopulate; thin scopula on tarsus III; ster-
 num without pair of sigilla in labial groove [NSW, Vic, SA, WA, Qld]
*M. dipsaci*
- 13 Length of carapace < 4.0 mm, rasps on all patellae [WA: Southwest]
*M. torbayensis*
 – Length of carapace > 5.0 mm, rasps on patellae I and III only [WA: South-
 west]*M. granulosa*
- 14 Abdomen entirely metallic blue, patella III with more than 25 rasps [WA:
 Mallee]*M. pinguipes* sp. n.
 – Abdomen with some metallic blue markings but otherwise reddish brown; patella
 III with fewer than 25 rasps [WA: Carnarvon and Yalgoo]*M. leniae* sp. n.

2 There is confusion about the identity of *M. insignis* and *M. occatoria*. Both species cannot be diagnosed based on the original description. The holotype of *M. insignis* is from Swan River, Western Australia and that of *M. occatoria* from an unidentified locality in “New Holland” (= Australia). Main (1985) suggested referring Western Australian specimens to *M. insignis* (the ‘western’ species) and eastern Australian specimens to *M. occatoria* (the ‘eastern’ species).

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On the identity of the type species of *Actinopus tarsalis* (Araneae: Actinopodidae)

Laura T. Miglio¹, Sylvia M. Lucas² & Alexandre B. Bonaldo¹

¹ Laboratório de Aracnologia, Museu Paraense Emílio Goeldi. Caixa Postal 399, 66017-970 Belém, PA, Brazil.

E-mail: lauramiglio@gmail.com; bonaldo@museu-goeldi.br

² Laboratório de Artrópodes, Instituto Butantan. Avenida Vital Brasil 1500, 05503-900 São Paulo, SP, Brazil.

E-mail: sylvialucas@butantan.gov.br

ABSTRACT. The type species of the Neotropical *Actinopus*, *A. tarsalis* Perty, 1833, is redescribed based on material from the type locality, the state of Piauí, Brazil. The species appears to be restricted to northeastern Brazil and is newly recorded from the state of Sergipe. An old record from the state of Rio Grande do Sul is rejected. *Actinopus tarsalis* differs from other species of the genus by details of the male copulatory bulb: tegular apophysis absent, robust embolar base, inserted basally at a right angle (90°); embolar apices apex flattened and expanded, arrow-shaped in dorsal view.

KEY WORDS. Arachnida; morphology; Mygalomorphae; Neotropical Region; taxonomy.

Actinopus was proposed by PERTY (1833), to include only the type species, *Actinopus tarsalis* Perty, 1833, originally described in the same occasion. This species was based on a single male collected in the state of Piauí, Brazil, by J.B. von Spix and C.F.P. Martius, who traveled through Piauí during May, 1819, collecting in the villages of Amarante and Oeiras (SPIX & AGASSIZ 1829, PAPAVERO 1971, LEVI 1964). The acceptance of *Actinopus* as a valid genus was not immediate, since LUCAS (1837) transferred *A. tarsalis* to *Pachyloscelis* Lucas, 1835 and WALCKENAE (1842) to *Sphodros* Walckenaer, 1835. C.L. KOCH (1842) revalidated *Actinopus*, re-describing the type species and expanding its known distribution to Uruguay. The first informative illustrations of the male copulatory bulb were provided by LUCAS *et al.* (1978/1979), based on a single specimen from São Raimundo Nonato, Piauí.

The systematic of Actinopodidae is now relatively well established. The seminal paper by RAVEN (1985) placed the family among the Fornicephalae, providing the first hypothesis of monophyly for the family. Presently, three putatively monophyletic lineages are recognized: the exclusively Neotropical *Actinopus*, the Australian/Chilean *Missulena* Walckenaer, 1805 and the Chilean *Plesiolenia* Goloboff & Platnick, 1987. GOLOBOFF & PLATNICK (1987) provided the first set of putative synapomorphies for *Actinopus*. Despite the advances in recognizing these putatively monophyletic groups, the taxonomic knowledge of Actinopodidae genera, especially that of *Actinopus*, is far from satisfactory. The 27 presently-valid species have not yet been revised, and preliminary surveys on Neotropical material from several collections indicate that the diversity of the genus is much larger than previously expected, with nearly twice the number of currently known species waiting to be described (L.T. Miglio, personal data). The first step toward a revision of such a large genus is to establish, beyond any doubt, the identity of its type species.

The holotype was not located in the Musée de Historie Naturelle, Paris and, as most Perty's material, is probably lost. However, an exhaustive search for material coming from the state of Piauí revealed a number of individuals whose characteristics are consistent with those originally described for *A. tarsalis*. These individuals are co-specific with the specimen identified as such by LUCAS *et al.* (1978/1979). Beyond the fact that the collecting localities of Spix & Martius in Piauí are within the area of occurrence here postulated for *A. tarsalis* in northeastern Brazil (Fig. 13), our specimens represent the only currently known species of *Actinopus* from Piauí (among four other morphospecies, all of them known only by males) that does not present characters flagrantly conflicting with the original description of *A. tarsalis*. We are therefore confident that the spiders presented below are co-specific with the specimen described by PERTY (1833) as *A. tarsalis*. The record of this species for Uruguay by C.L. KOCH (1842) probably refers to an erroneous identification: examining material from several localities in Uruguay, as well as from nearby regions (Rio Grande do Sul, Brazil and Buenos Aires, Argentina) indicated that *A. tarsalis* do not occur there.

Unfortunately, despite our efforts in gathering relevant material, the female of *A. tarsalis* remains unknown. The lack of females may be explained by the extreme behavioral differences presented by males and females in this genus. While the males present wandering habits, been commonly collected with pitfall-traps, the females dig trapdoor burrows to ambush their prey, which they rarely abandon (COYLE *et al.* 1990, BRESOVIĆ *et al.* 2002). These natural history particularities cause a predisposition on the number of *Actinopus* disponible in collections, in which nearly 75% are males and virtually no vial is composed by representatives of both sexes. Interestingly COYLE *et al.* (1989), suggested that females of *Actinopus* may be quite

abundant, reporting the observation of 50 *Actinopus* burrows in a single aggregation. BRESCOVIT *et al.* (2002) indicated that usually after the first specimen has been found, other specimens are easily seen, since their burrows present a clustered distribution. However, most of the modern records of *Actinopus* came from structured inventories, which employ a fixed, generally time-bounded sampling protocol that consistently undersamples trapdoor spiders and other burrowing arachnids.

MATERIAL AND METHODS

The material examined belongs to the following institutions (curators in parentheses): IBSP, Instituto Butantan, São Paulo, São Paulo, Brazil (D.M. Barros Battesti); MCN, Fundação Zoobotânica do Rio Grande do Sul, Museu de Ciências Naturais, Porto Alegre, Rio Grande do Sul, Brazil (E.H. Buckup); and MPEG, Museu Paraense Emílio Goeldi, Belém, Pará, Brazil (A.B. Bonaldo).

All measurements are expressed in millimeters. Measurements of length and width of the eye area and height from the fovea were taken according to GRISWOLD & LEDFORD (2001). The format of the description follows GRISWOLD & LEDFORD (2001), except for the spine pattern, which follows PETRUNKEVITCH (1925). The terminology for the structures of the copulatory bulb follows BERTANI (2000) and acronyms for the height of carapace follows GRISWOLD & LEDFORD (2001).

Approximated latitude and longitude data for those records that were not georeferenced, were obtained from online gazetteers (MIRANDA & COUTINHO 2004, FALLINGRAIN GENOMICS 2006). The approximate travel route of Spix and Martius through North-west Brazil was plotted in Fig. 12 is based on PAPAVERO (1971).

Abbreviations used in the descriptions and illustrations: (TA) tegular apophysis, (PA) paraembolyc apophysis, (PAC) prolateral accessory keel, (PI) prolateral inferior keel, (PS) prolateral superior keel, (Fe) femur, (Pa) patella, (Ti) tibia, (Me) metatarsus, (Ta) tarsus, (d) dorsal, (v) ventral, (p) prolateral, (r) retrolateral, (PME) posterior median eyes, (PLE) posterior lateral eyes, (ALE) anterior lateral eyes, (AME) anterior median eyes, (MOQ) median ocular quadrangle, (OAL) ocular area length, (OAW) ocular area width, (HF) Height from the fovea.

TAXONOMY

Actinopus tarsalis Perty, 1833

Figs 1–12

Actinopus tarsalis Perty, 1833: 198, pl. 39, fig. 6 (holotype male, Piauí, Brasil, not located in MNHN, probably lost); C.L. Koch, 1842: 101, fig. 753; Simon, 1892: 80, figs 80, 82; Lucas *et al.*, 1978/1979: 133, figs 3–6; Platnick, 2012.

Pachyloscelis tarsalis; Lucas, 1837: 377.

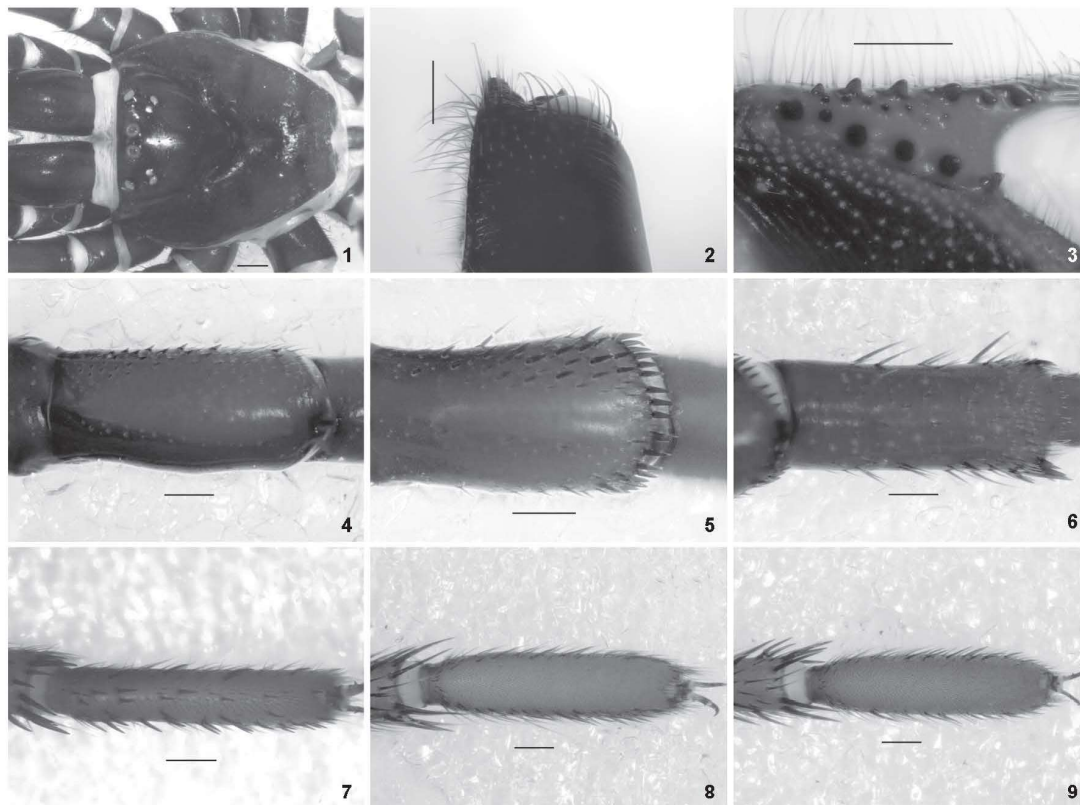
Sphodros tarsalis; Walckenaer, 1842: 437.

Diagnosis. Males of *Actinopus tarsalis* differs from the ones of all other species of the genus by the copulatory bulb with-

out a tegular apophysis and by the robust embolar base, inserted basally at a right angle (90°); embolar apex flattened and expanded, arrow-shaped in dorsal view (Figs 9–11).

Male (MPEG 11715). Total length 14.3; Carapace, long 6.51; wide 2.82. Carapace anterior region tapering. Anterior eye row slightly procurved, posterior row recurved (Fig. 1). One bristle between OMA-clypeus, few bristles distant between the PME-PME and PLE-PLE. Rastellum protuberant, inverted V-shaped, hirsute, without spines (Fig. 2). Chelicera with denticles close to the prolateral row of teeth (Fig. 3). Patella and tibia III with distal crown of well developed thorns (Figs 5 and 6). Patella III and IV with spines on prolaterodorsal face (Figs 4 and 5). Ventral scopulae occupying 50% of the length of tarsus I, 90% to 100% of II and III and IV (Figs 7 and 8). Scopula of tarsi I and II with setae spaced, forming diffuse group of bristles. Carapace and chelicera pale brown, sternum yellowish brown, coxae, trochantera, femora and patellae pale brown, tibiae, metatarsi and tarsi pale orange, abdomen pale gray. **Eyes:** **Diameters:** PME 0.19 PLE 0.24 ALE 0.36, AME 0.34; **MOQ:** Length 0.92, front width 0.92, back width 1.89; **Interdistances:** PME-PME 1.44, PLE-PME 0.09, AME-AME 0.22, ALE-AME 0.41, ALE-PLE 0.38, AME-PME 0.37. **Ocular area:** OAL 2.76, OAW 3.86, and IF 1.76. **Body:** Clypeus: 6.51; Fovea: 2.82; Labium: length 0.91; width 0.87; Chelicera: length 3.82; width 1.59; Sternum: length 3.03; width 2.56; Abdomen: length 7.56; width 5.18. **Leg measurements:** I: Fe 6.14/Pa 2.64/Ti 3.48/Me 4.76/Ta 2.93/total 19.95. II: 5.94/2.48/3.43/4.97/2.88/19.7. III: 4.66/2.58/2.25/4.96/3.34/17.77. IV: 6.5/2.89/4.98/5.44/3.12/22.93. **Formula** 4123. **Spinulation:** I – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v4-7-9, d0, p0-0-2, r0-0-3; Me v10-8-11, d0, p1-2-3, r0-1-3; Ta v10-7-10, d0, p0-1-3, r1-3-6. II – Fe v0, d0, p0, r0; Pa v0-0-1, d0, p0, r0; Ti v4-5-8, d0, p0-0-1, r1-3-5; Me v8-11-12, d0, p0-0-2, r2-4-6; Ta v9-8-6, d0, p0-0-1, r4-3-6. III – Fe v0, d0, p0, r0; Pa v0-0-4, d7-10-23, p1-0-3, r0-0-3; Ti v3-3-4, d1-0-3, p0-3-4, r0-0-4; Me v5-6-4, d0, p0-1-3, r1-2-5; Ta v0-1-2, d0, p1-4-6, r0-4-5; IV – Fe v0, d0, p0, r0; Pa v0-0-3, d15-8-3, p0, r0; Ti v3-2-5, d0, p0-1-0, r0-0-2; Me v8-9-6, d0, p1-1-3, r0-0-1; Ta v0-0-4, d0, p0-5-9, r0-2-3. **Palp:** PA well developed, embolus with three small keels (Pa, PI and PS); keels evident in dorsal and retrolateral views, barely visible prolaterally. TA absent; prolateral surface of tegulum serrated next the base of the embolus (Figs 9–11).

Variation. Males (n = 10): **Eyes:** **Diameters:** PME 0.17 ± 0.25, PLE 0.22 ± 0.39, ALE 0.34 ± 0.5, AME 0.3 ± 0.43; **MOQ:** Length 0.85 ± 1.36, front width 0.8 ± 1.44, back width 1.64 ± 2.52; **Interdistances:** PME-PME 1.37 ± 2.21, PLE-PME 0.05 ± 0.1, AME-AME 0.14 ± 0.37, ALE-AME 0.41 ± 0.86, ALE-PLE 0.37 ± 0.66, AME-PME 0.32 ± 0.67. **Ocular area:** OAL 2.76 ± 4.52, OAW 2.7 ± 3.87, and IF 1.58 ± 2.21. **Body:** Total length: 11.09 ± 16.38; Carapace: length 4.83 ± 7.04; Width 4.9 ± 6.47; Clypeus: 0.13 ± 0.26; Fovea: 2.12 ± 4.06; Labium: length 0.91 ± 1.57; Width 0.84 ± 1.34; Chelicera: length 2.68 ± 3.82; Width 1.4 ± 1.96; Sternum: length 3.03 ± 4.19; Width 2.56 ± 3.93; Abdomen: length 5.43 ± 7.74; Width 3.97 ± 6.39. **Leg measurements:** I: Fe 5.58 ±



Figures 1-8. *Actinopus tarsalis*, male, 1-8 MPEG 11715: (1) carapace; (2) rastelum, dorsal; (3) cheliceral teeth, ventral; (4) patella IV, dorsal; (5) patella III, dorsal; (6) tibia III, dorsal; (7) scopula, tarsus II, ventral; (8) scopula, tarsus III, ventral; (9) scopula, tarsus IV, ventral. Scale bars: 0.5 mm.

6.71/Pa 2.25 ± 2.82 /Ti 3.48 ± 4.44 /Me 4.3 ± 5.4 /Ta 2.84 ± 3.23 /total 18.19 ± 22.6 . II: 5.37 ± 6.68 /2.24 ± 2.88 /3.07 ± 4.17 /4.37 ± 5.59 /2.8 ± 3.37 /17.89 ± 22.69 . III: 4.26 ± 5.33 /2.15 ± 3.05 /2.08 ± 3.09 /4.38 ± 5.79 /2.78 ± 3.65 /15.65 ± 20.85 . IV: 5.72 ± 7.41 /2.48 ± 3.31 /4.11 ± 5.53 /4.89 ± 6.19 /2.95 ± 3.68 /20.33 ± 26.09 .

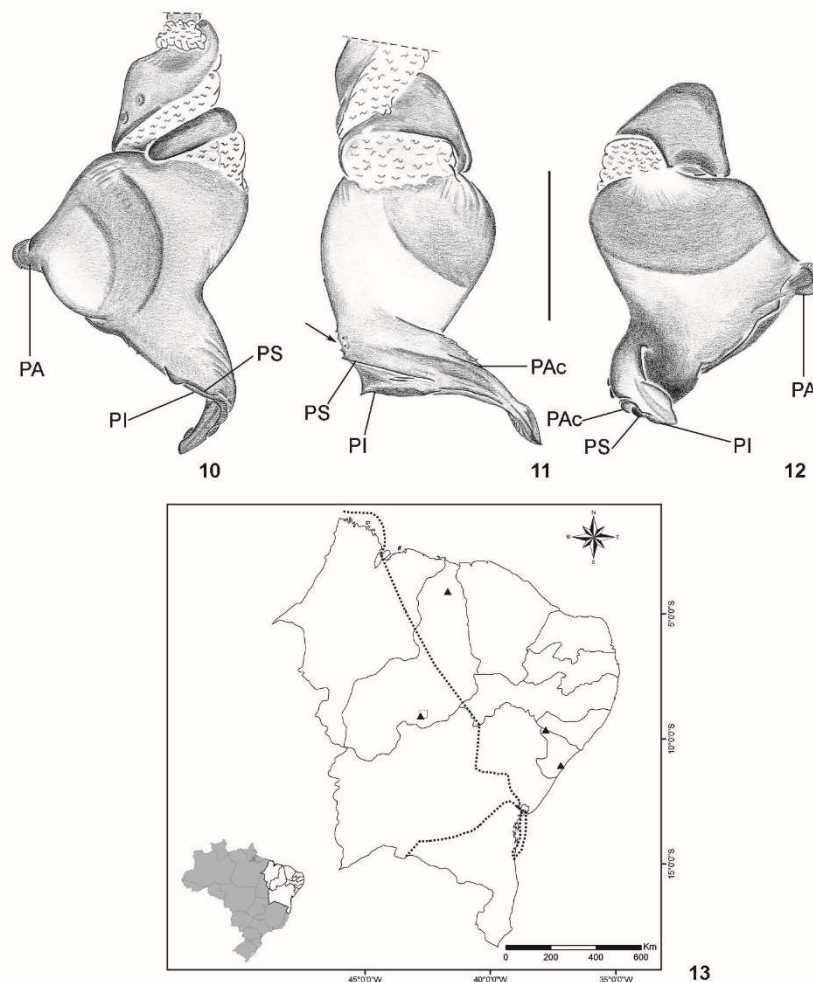
Material examined. BRAZIL: *Piauí*: Brasileira e Piracuruca, Parque Nacional de Sete Cidades, 04°05'S6.3"S, 41°05'S6.3"W, Campo Limpo, 3 males, 15-20.IX.2006, L.S. Carvalho *leg.* (MPEG 2535); Cerradão, 4 males, 26.I.2007, L.S. Carvalho, M.T.L. Avelino & M.P. Albuquerque *leg.* (MPEG 11715, MPEG 11717, MPEG 11718, MPEG 11720); Mata Seca Semidecídua, 2 males, 22.I.2007, L.S. Carvalho *leg.* (MPEG 11716); 1 male, 23.I.2007, L.S. Carvalho, M.T.L. Avelino & M.P. Albuquerque *leg.* (MPEG 11719); São Raimundo Nonato, 09°0'S, 42°41'W, 1 male, III.1979, C.R. Russo *leg.* (IBSP 104407); XI.1999, F. Wolf *leg.* (MCN 33484); *Sergipe*: Canindé de São Francisco, Rio São Fran-

cisco, Usina Hidrelétrica de Xingó, Área 8, 2 males, 08.VI.2000 (IBSP 114464); São Cristóvão, 1 male, 1988, (IBSP 110499).

Distribution. Known from the states of Sergipe and Piauí, Brazil. The record from Uruguay (C.L. Koch 1842) is rejected.

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Figures 10-13. *Actinopus tarsalis*, male, 10-12 MPEG 11715: (10) copulatory bulb, prolateral; (11) copulatory bulb, dorsal; (12) copulatory bulb, retrolateral – (PA) Paraembolyc apophysis, (Pac) Prolateral accessory keel, (PI) prolateral inferior keel, (PS) prolateral superior keel. Arrow: serrated surface on prolateral tegulum; (13) known distribution of *Actinopus tarsalis*. The black triangles represent the records from the present paper; the white square represents the record by LUCAS *et al.* (1978/1979). The dashed line indicates the approximated route of Spix & Martius expedition through northeastern Brazil, based on the information gathered by PAPAVERO (1971). Scale bar: 1.0 mm.

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