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ONE MORE NEW SPECIES OF *BROTEOCHACTAS* POCOCK, 1893 (SCORPIONES: CHACTIDAE) FROM BRAZILIAN AMAZONIA

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Abstract: A new contribution to the knowledge of the scorpions belonging to the genus *Broteochactas* Pocock, 1893 is proposed and a new species is described, *Broteochactas purus* **sp. n.**, based on one female specimen collected in the region of Beruri near the River Purus in the State of Amazonas, Brazil. The new species is characterized by a small size, an intense reddish to reddish-yellow coloration, body and appendages with punctation and metasomal segment V and telson with conspicuous spinoid granulations.
Key words: Scorpiones, Chactidae, *Broteochactas*, new species, Rio Purus, State of Amazonas, Brazil.

Otra especie nueva de *Broteochactas* Pocock, 1893 (Scorpiones: Chactidae) de la Amazonia brasileña
Resumen: En esta nueva contribución al conocimiento de los escorpiones pertenecientes al género *Broteochactas* Pocock, 1893, se describe una especie nueva, *Broteochactas purus* **sp. n.**, sobre la base de una hembra recolectada en la región de Beruri, cerca del río Purus, en el Estado de Amazonas, Brasil. Esta nueva especie se caracteriza por su pequeño tamaño, intensa coloración rojiza a amarillo-rojiza, cuerpo y apéndices con puntuaciones y segmento metasomal V y telson con una conspicua granulación espinoide.
Palabras clave: Scorpiones, Chactidae, *Broteochactas*, especie nueva, Rio Purus, Amazonas, Brasil.

Taxonomy/Taxonomía: *Broteochactas purus* **sp. n.**

Introduction

As already outlined in several previous papers (Lourenço, 2012, 2014; Lourenço *et al*., 2010, 2011), contributions to the knowledge of the Amazonian scorpion fauna and in particular of the elements belonging to the family Chactidae Pocock, 1893 have been the subject of numerous studies (e.g. Lourenço, 2012, 2014; Lourenço & Duhem, 2010; Lourenço *et al*., 2011). However, Amazon region remains one of the world's most diverse for its fauna of scorpions. Inventory on the Amazonian scorpion fauna began in the second half of the 19th century and was for the first time synthesised in a monograph by Mello-Leitão (1945). Since then other contributions have been published, noticeably González-Sponga (1996) and Lourenço (2002a, b). On account of the diversity and richness of the Amazonian scorpion fauna, the discovery and description of new species is by no means unusual (Lourenço, 2002a, b; Lourenço *et al*., 2011).

The genus *Broteochactas* is one of the chactid scorpion groups best represented in the Neotropical scorpion fauna. Most South American species of this genus are concentrated in the Amazonian and Guayanian floristic provinces (Mori, 1991; Prance & Lovejoy, 1985, Adis, 2002). By the time when Mello-Leitão (1945) published his monograph on South American scorpions, only three/four species were known from Brazil. In fact, most species today known for Brazilian Amazonia have been described only in recent years (Lourenço, 2002a, b, 2014; Lourenço *et al*., 2011). In this contribution, a new species belonging to the genus *Broteochactas* Pocock, 1893 is described from the region of Beruri, located in the margins of the Rio Purus in the State of Amazonas, Brazil.

Methods

Illustrations and measurements were made using a Wild M5 stereo-microscope with a drawing tube and an ocular micrometer. Measurements follow those of Stahnke (1970) and are given in mm. Trichobothrial notations are those developed by Vachon (1974) and the morphological terminology mostly follows Hjelle (1990).

Taxonomic treatment

Family Chactidae Pocock, 1893

Genus *Broteochactas* Pocock, 1893

***Broteochactas purus* sp. n.** (Fig. 1-11)

TYPE MATERIAL: Brazil, Amazonas State, Beruri, 03° 56' 02" S – 61° 29' 03" W, Igapo nearby the Rio Purus, 17/XII/1980 (M. Parmaundo). Female holotype, deposited in the Museu Nacional, Rio de Janeiro.

ETYMOLOGY: The specific name is placed in apposition to the generic name and refers to the region, Rio Purus, where the new species was collected.

DIAGNOSE: Small scorpion with 23.5 mm in total length. Coloration dense red to reddish-yellow. Body and appendages weakly granulated, smooth and lustrous with punctations. Metasomal carinae weakly to moderately marked; segment V shows several conspicuous spinoid granules on ventral aspect. Pectines with 6-6 teeth. Trichobothrial pattern of type C neobothriotaxic 'majorante'.

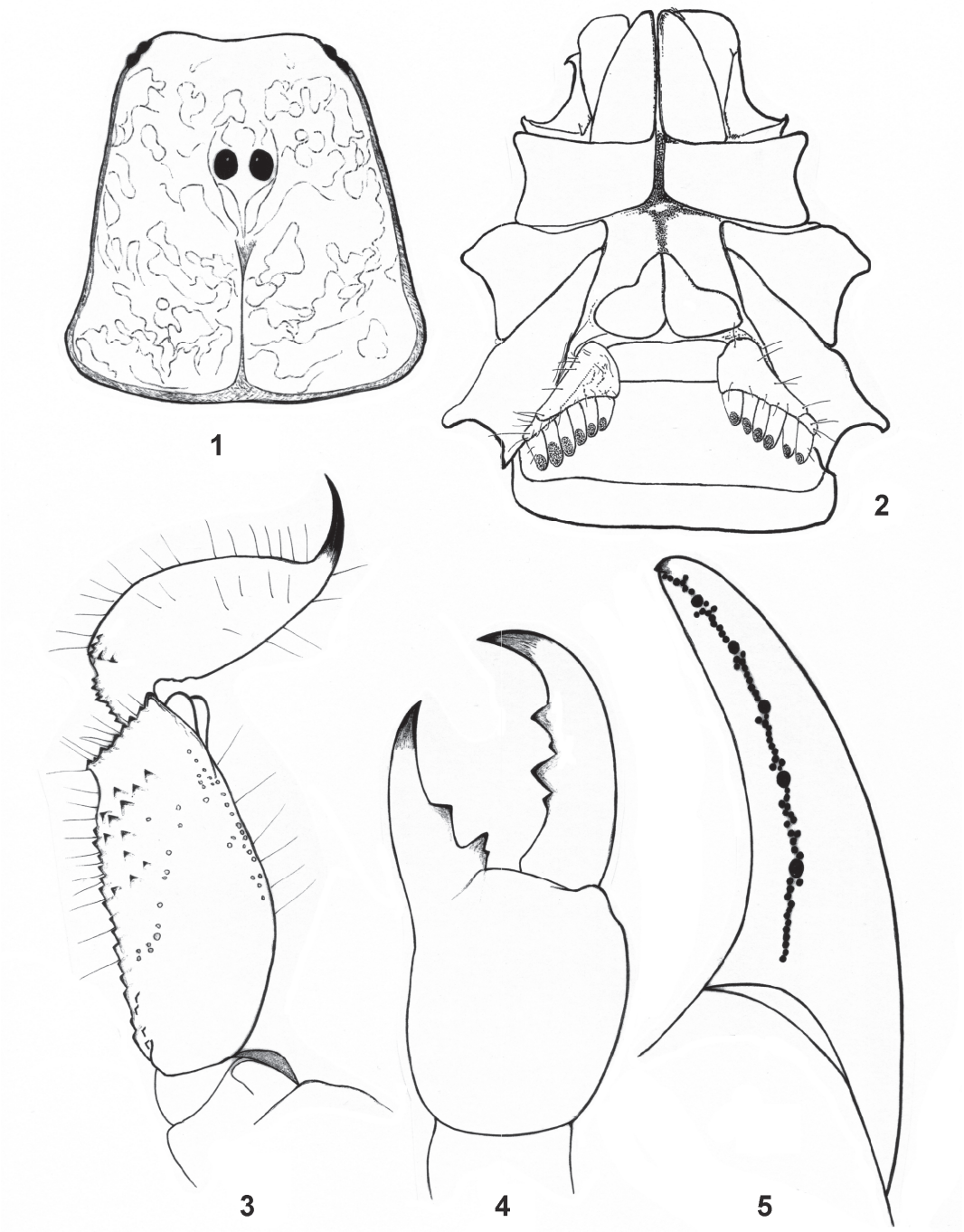


Fig. 1-5. *Broteochactas purus* sp. n. Female holotype. **1**. Carapace. **2**. Ventral aspect, showing coxapophysis, sternum, genital operculum and pectines. **3**. Metasomal segment V and telson, lateral aspect. **4**. Chelicera, dorsal aspect. **5**. Disposition of the granulations over the dentate margins of pedipalp-chela movable finger.

RELATIONSHIPS: *Broteochactas purus* sp. n. can be included in the '*Broteochactas*' species group (Lourenço, 2002a). The new species is distinguished from others *Broteochactas* and in particular from *B. silves* Lourenço, 2014, which occurs in the region of Silves and *Broteochactas fei* Pinto da Rocha, Gasnier, Brescovit & Apolinário, 2002 endemic to the region of Manaus (Pinto da Rocha *et al*., 2002), both in the State of Amazonas, by a number of characters: (i) slightly small in size with several distinct morphometric values; in particular shorter telson and pedipalps with less bulk chelae (for details refer to Lourenço, 2014), (ii) dense reddish coloration of pedipalps, while in *B. silves* and *B. fei* these are brown, (iii) stronger spinoid granulations on ventral aspect of metasomal segment V and telson, (iv) tergites without granulations, smooth, (v) aculeus strongly curved. Moreover *B. silves* and *B. purus* sp. n. inhabitat quite distinct habitats; *B. purus* sp. n. was found in a zone of Igapo (flooding area), whereas *B. silves* was found exclusively in Terra Firme (dry) formations.

DESCRIPTION BASED ON FEMALE HOLOTYPE.

Coloration basically dense red to reddish-yellow. Prosoma: carapace reddish to slightly reddish-brown. Tergites as the carapace. Metasomal segments reddish-yellow, globally paler than tergites; vesicle reddish-yellow; aculeus dark red. Chelicerae yellowish only slightly marked with dark spots at the base of fingers; fingers yellow with reddish teeth. Pedipalps

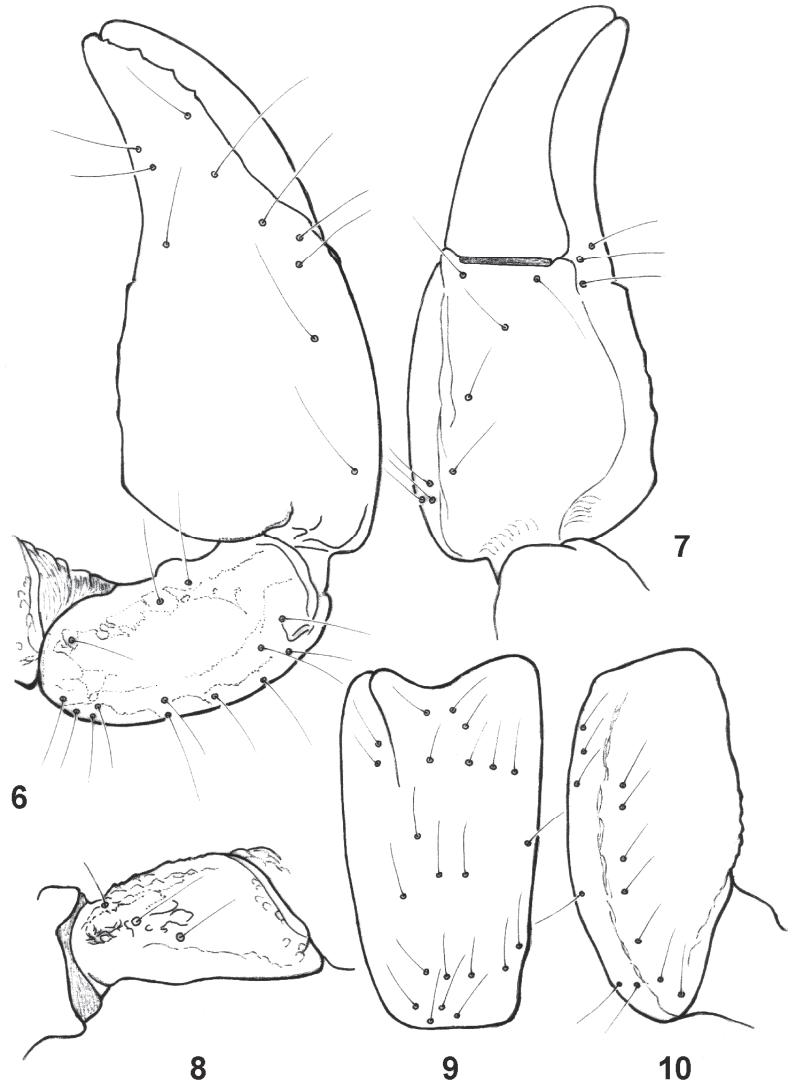


Fig. 6-10. *Broteochactas purus* sp. n. Female holotype. Trichobothrial pattern. **6-7**. Chela, dorso-external and ventral aspects and patella, dorsal aspect. **8**. Femur, dorsal aspect. **9-10**. Patella, external and ventral aspects.

dark red; femur marbled with brownish zones; no blackish zones over the carinae; chelae intensely red; granulations over the dentate margins of fingers dark, almost blackish. Legs yellow with diffused brownish spots. Venter yellow; sternites VI and VII with diffused brownish spots; pectines and genital operculum yellow, paler than coxapophysis.

Morphology. Carapace (Fig. 1) lustrous and acarinate, with punctations; furrows shallow. Sternum pentagonal, wider than long (Fig. 2). Tergites acarinate, smooth and shiny, without granulations on the posterior edge. Pectinal tooth count 6-6 for female holotype (Fig. 2); fulcra absent. Sternites smooth and shiny, VII acarinate; spiracles with a round-shape. Only metasomal segments IV and V longer than wide; metasomal tegument lustrous without granulations; segment V with conspicuous spinoid granulations ventrally (Fig. 3). Dorsal and latero-dorsal carinae moderate to weak on segments I-V; latero-ventral carinae moderate on segments I-II; other carinae vestigial or absent; ventral carina absent from segments I to IV. Telson smooth with strong spinoid granules in the postero-ventral region; aculeus shorter than vesicle and strongly curved. Pedipalps (Fig. 6-10): femur with dorsal internal, dorsal external and ventral internal carinae moderately marked; ventral external carina absent; tegument with a few granulations, almost smooth; internal aspect very weakly granular. Patella smooth; all carinae weak to vestigial. Chela with a few minute granulations; ventral and dorsal median carina weak to vestigial; internal aspect with a few weak granules, almost smooth. Dentate margins on movable and fixed fingers with six rows of granules separated by stronger accessory granules (Fig. 5). Chelicerae (Fig. 4) with a dentition typical of Chactidae (Vachon, 1963), and with dense setation ventrally and internally. Trichobothrial pattern of type C, neobothriotaxic (majorante) 'major neobothriotaxy'. (Vachon, 1974).

Morphometric values of the female holotype of *Broteochactas purus* sp. n. Total length (including the telson), 23.5. Carapace: length, 3.9; anterior width, 2.5; posterior width, 3.7. Mesosoma length, 6.4. Metasomal segments. I: length, 1.5; width, 2.4; II: length, 1.7; width, 2.2; III: length, 1.8; width, 2.1; IV: length, 2.1; width, 1.9; V: length, 3.6; width, 1.6; depth, 1.4. Telson length, 2.5. Vesicle: width, 1.3; depth, 0.9. Pedipalp: femur length, 2.2, width, 1.2; patella length, 2.9, width, 1.4; chela length, 5.2, width, 2.1, depth, 2.4; movable finger length, 2.7.

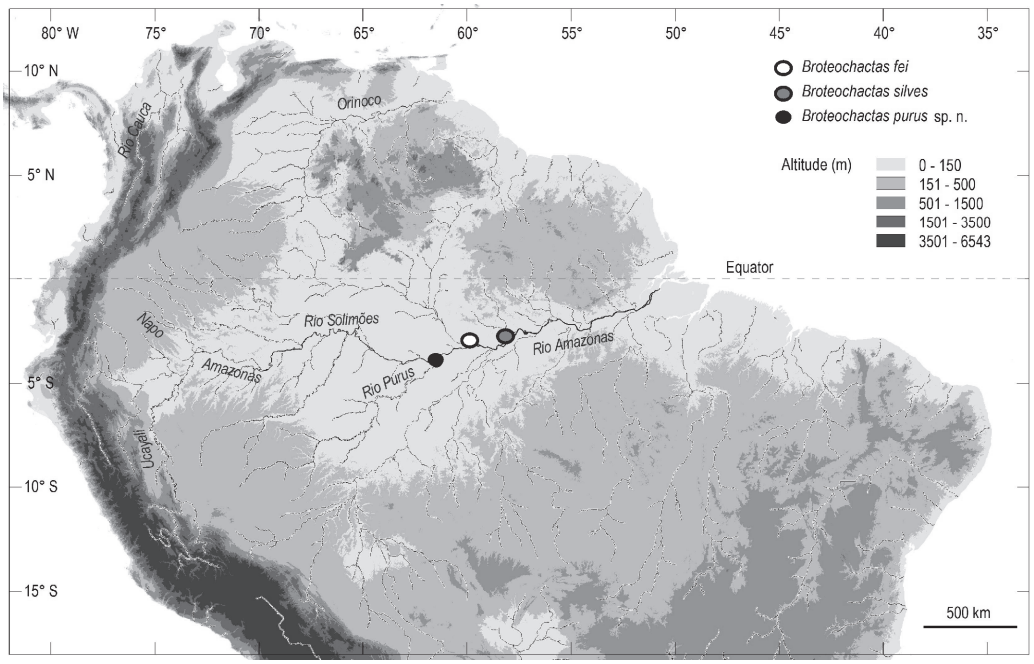


Fig. 11. Map of the Amazon region, showing the type localities of *Broteochactas purus* sp. n., *B. fei* and *B. silves*.

DISTRIBUTION. Only known from the type locality (Fig. 11).

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(*) Available on www.sea-entomologia.org