

A contribution to the scorpion fauna of Peru,  
with a description of *Chactas koepcke* sp. nov.  
(Arachnida: Scorpiones)

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ABSTRACT. – A small collection of scorpions collected by H.-W. KOEPCKE in Peru and housed at the Zoologisches Museum Hamburg has been examined. The material was collected between 1952 and 1971 and consists of 109 specimens from four genera and two families. Altogether 17 species, including *Chactas koepcke* sp. nov., have been identified. Additional six taxa have only been determined tentatively. They probably represent further new species. A new morph of the polymorphic *Tityus silvestris* POCK, 1897 is also reported.

KEYWORDS: Scorpions, Neotropics, Peru, taxonomy, faunistics, *Chactas koepcke* sp. nov.

### Introduction

Even if some early works on Neotropical scorpions also referred to Peru (e.g. GERVAIS 1841, THORELL 1876, POCK 1897, 1900, KRAEPELIN 1911, CHAMBERLIN 1916), the scorpion fauna remains poorly known, when compared to that of other South American countries. The pioneer papers, together with subsequent publications and other available data on Peruvian scorpions are summarized by MELLO-LEITÃO (1945) in his South American monograph. The last paper of the author, devoted to scorpions (MELLO-LEITÃO & ARAÚJO FEIO 1948), describes three new species from Peru.

Beginning with the 1970s, several other papers contributed to the knowledge of the Peruvian scorpion fauna (e.g. AGUILAR & MENESES 1970, MAURY 1974, 1975, 1978, FRANCKE 1977, LOURENÇO 1979, FRANCKE & SOLEGLAD 1980, LOURENÇO & MAURY 1985). They considerably enhanced our knowledge about these arachnids in the region but none provides a general synthesis of such a fauna in Peru, as it has already been done for nearby countries (MAURY 1979, GONZALEZ-SPONGA 1984, 1996, LOURENÇO 1983, 1988a, 1994, 1995, 1997, in press).

In this paper results of the examination of the Peruvian scorpions lodged in the Zoologisches Museum Hamburg (ZMH) are provided.

## Material and methods

The paper is based on a small collection of scorpions deposited in the Chelicerata Collection by Prof. Dr. HANS-WILHELM KOEPCKE, a former curator in the Herpetological Department of ZMH. KOEPCKE worked for many years in Peru and maintained there his own biological field station in the tropical forest of Panguana. During his stay in Peru he made together with his wife, Dr. MARIA KOEPCKE, an ornithologist, numerous collecting trips throughout the country. Already in the 1950s KOEPCKE deposited some scorpions in the Senckenberg Museum (Frankfurt a.M.), but no information about that material has been published yet (pers. comm. to H. D.). The remaining part of the collection he donated recently to the Zoologisches Museum Hamburg.

The Peruvian scorpions in Hamburg comprises 46 samples with 109 specimens collected from 39 localities throughout the country. The majority of them are in good condition, several specimens however are poorly preserved, making certain identification not possible. The material is kept in 70 % ethanol. A general catalogue of all sampled localities in Peru and the respective collecting data are summarized in an unpublished manuscript (KOEPCKE 1982), a copy of which is deposited in the ZMH archive. All scorpions, except type specimens (see below), are registered under the ZMH accession number A18/01.

Unless otherwise indicated, all specimens were collected by H.-W. KOEPCKE. The number of individuals collected at a particular locality is given in the survey list in square brackets, while the numerals in round brackets following the letters "Kp" and "ZM" stand for the KOEPCKE's catalogue reference number and the ZMH working number, respectively. General data on the distribution of scorpions in South America are cited after FET et al. (2000). In the survey of the recorded species, the ordinal locality number is placed in parentheses.

### List of localities

1. Near Matapalo (3°42' S, 80°12' W), at Río Zarumilla. Partly evergreen tropical rain forest, 60 m a.s.l., 27-29 April 1956, [2 specimens], (Kp 1408 bu) (ZM 19).
2. By Angolo (ca. 4°30' S, 80°46' W), near Los Ceibos. Hacienda Mallares. Summer-green mountain forest, 600-750 m, 21 April 1956, [3], (Kp 1402 am) (ZM 18).
3. By Suyo (4°32' S, 80°01' W). Summer-green mountain forest, 500-700 m, 18 April 1956, [6], (Kp 1395 y) (ZM 17).
4. Huabual (ca. 5°21' S, 79°39' W) at Canchaque. Partly evergreen mountain forest, 650-750 m, 6-7 May 1956, [1], (Kp 1418 ag) (ZM 20).
5. Near Punta Negra (6° 06' S, 81° 09' W), the southernmost rocky cape of Cerro Illescas. Meadow with stones on a hill, 150-240 m, 21.7.1958, H.-W. & M. KOEPCKE, [1], (Kp 1569) (ZM 46a).
6. At Chongoyape (6°38' S, 79°23' W). Mountain steppe, 250-350 m, 3 March 1958, [1], (Kp 1501 ah) (ZM 27).
7. Hacienda Huacraruco (7°19' S, 78°26' W) on W slope of the Andes. Evergreen oligotherm (= "temperate") rainforest with transition to bushforest and mesotherm (= "subtropical") rainforest, 2400-2700 m, 22-27 March 1958, [2], (Kp 1522 bz) (ZM 28).
8. Hacienda Llaguén (7°40' S, 78°40' W), Quebrada Borga-pampa. Transition between sparse mountain forest and bushes at the river bank, c. 1800 m, stones, December 1952, [1], (Kp 666 fl) (ZM 1).
9. Quebrada Yanganuco (Laguna Y.: 9°04' S, 77°37' W), between Cerros Huascarán and Huandoy. Mixed *Polylepis* forest, 3600 m, 27.7.-8 August 1960, [1], (Kp 1699 ch) (ZM 34).
10. La Divisoria (a pass over Cordillera Azul) (9°11' S, 75°47' W). Mesothermic (= "subtropical") rainforest, 1400 m, 28 July 1961, [1], (Kp 1747 f) (ZM 35).
11. At Río Pachitea (9°23' S, 74°58' W), vis-à-vis mouth of Río Macui (between Tournavista and Puerto Inca). Tropical rainforest; a flat, stony ground, not flooded, c. 250 m, 2-8 August 1959, [1], (Kp 1613 p) (ZM 29).
12. Cerro del Sira, N summit (9°27' S, 74°41' W). Mountain tropical rainforest, c. 500-1000 m, July-August 1969, C. TOFT, [1], (comp. Kp 1951-1959) (ZM 44).
13. Near Colcabamba (9°36' S, 77°49' W). Sparse mountain forest with *Oreopanax*, 2500-2800 m, 16-18 August 1956, [1], (Kp 1438 bv) (ZM 23).
- 14 a. Panguana (9°37' S, 74°56' W) at Río Yuyapichis, tributary of Pachitea, c. 260 m. In house (in tropical rainforest), August 1968, [1], (Kp 1892 ef) (ZM 37).
- 14 b. As above, in garden (in tropical rainforest), Oktober 1968, [2], (Kp 1892 is/1) (ZM 38).
- 14 c. As above, in garden (in tropical rainforest), January 1969, [1], (Kp 1892 is/2) (ZM 39).
- 14 d. As above, in garden (in tropical rainforest), February 1969, [1], (Kp 1892 is/3) (ZM 40).

- 14 e. As above, in garden (in tropical rainforest), 1970, [1], (Kp 1892 is/4) (ZM 41).  
 14 f. As above, tropical rainforest, 7 January 1971, [1], (Kp 1894 dc) (ZM 42).  
 14 g. As above, in house, in tropical rainforest, December 1970, [1], specimen (Kp 1975 ab) (ZM 43).  
 15. Hacienda San Damián (9°53' S, 77°47' W), at Paja. Sparse evergreen mountain forest, 2600 m, 6 September 1956, [1], (Kp 1447 an) (ZM 24).  
 16. Isla San Martín (= "guano island") (11°01' S, 77°41' W), 2 Juni 1955, coll. Mario Peña, [3], (Kp 1259) (ZM 45).  
 17. Lachay (11°19' S, 77°22' W). Sandy hill, October, 1961 [1], (Kp 1759 l) (ZM 36).  
 18. By Tarma (11°25' S, 75°43' W). Dry riverbed, c. 3050 m, 14 July 1955, [2], (Kp 1292 a) (ZM 2).  
 19. Zárate (11°54' S, 76°29' W). Sparse mountain forest, c. 2840 m, 26-30 October 1955, [1], (Kp 1305 bh) (ZM 4).  
 20. As above. Sparse mountain forest, 2700-3100 m, 5-8 April 1956, [1], (Kp 1386 as) (ZM 15).  
 21. Near Zárate (ca. 11°54' S, 76°29' W). Transitional habitats between *Carica-* and *Jatropha* zone, leaf-falling bushsteppe and sparse mountain forest, 2350-2500 m, 6 April 1956, [1], (Kp 1388 o) (ZM 16).  
 22. Lima (12°03' S, 77°02' W). Municipal area, in house, c. 150 m, December 1955, [1], (Kp 1300 b) (ZM 3).  
 23. By Atocongo (12°13' S, 76°54' W). Rocky hill, 300-450 m, 12 July 1956, [10], (Kp 1425 g) (ZM 22).  
 24. Catahuasi (12°48' S, 75°53' W), area of Río Cañete. Agricultural area (mountain meadow), 1200 m, 14 December 1955, [1], (Kp 1329 b) (ZM 5).  
 25. Machu-Picchu (13°10' S, 72°31' W). Agricultural area (ruined city and its vicinity), 2200 m, 5 Juni 1956, [2], (Kp 1422 c) (ZM 21).  
 26. Near Canchina (13°21' S, 75°28' W), above Ticrapo, area of Río Pisco. Partly evergreen bushforest (widely extended, 0.75 - 2 m high, strongly overgrazed; dry season), 2500-3050 m, 21-24 November 1957, [2], (Kp 1480 ak) (ZM 26).  
 27. Near Ticrapo (13°22' S, 75°25' W). Grassy plains interspersed with shrubs (on soil/stony ground with low leaf-falling bushes and sporadic cacti), 2000 m, 20 November 1957, [1], (Kp 1476 r) (ZM 25).  
 28. Near Acarí (15°26' S, 74°37' W), Lomas de Pongo. Park on a hill, 570-800 m, 14-16 January 1960, [5], (Kp 1646 v) (ZM 30).  
 29. Chuquibamba (15°51' S, 72°39' W). On the road to Pampacola. Partly evergreen bushsteppe, 3200-3500 m, 27 January 1956, [3], (Kp 1371 ag) (ZM 13).  
 30. Near Chuquibamba (15°51' S, 72°39' W), on the road to Pampacolca. Mixed cacti- and bushsteppe, 3150 m, 26-29 January 1956, [1], (Kp 1372 s) (ZM 14).  
 31 a. Chala (15°52' S, 74°15' W). Park on a hill, 350-500 m, 21-23 January 1960, [5], (Kp 1659 o/1) (ZM 31).  
 31 b. Chala (15°52' S, 74°15' W). Meadow and park on a hill, 350-500 m, 21-23 January 1960, [7], (Kp 1659 o/2) (ZM 32).  
 32. Chala (15°52' S, 74°15' W). Forest on a hill (*Eugenia* forest), 600-750 m, 21-23 January 1960, [3], (Kp 1660 r) (ZM 33).  
 33. Road between Chala (15°52' S, 74°15' W) and Cháparra. Sparse forest on a hill, c. 500 m, 6 January 1956, [2], (Kp 1334 w) (ZM 7).  
 34. At Atico (16°14' S, 73°42' W). Meadow on a hill, 500-850 m, 7 January 1956, [6], (Kp 1340 g) (ZM 8).  
 35. Atico, 10 km S, (Atico: 16°14' S, 73°42' W), Candelabra cacti (= *Neoraimondia*) on a hill, c. 500-600 m, 8 January 1956, [2], (Kp 1341 z) (ZM 9).  
 36. Quebrada Canchero at Chachani Volcano (volcano summit: 16°17' S, 71°33' W). *Polylepis* bushsteppe (= Queñoa shrub), 3700-4100 m, 20-22 January 1956, [4], (Kp 1360 ad) (ZM 11).  
 37. Chachani-Volcano, S slope (volcano summit: 16°17' S, 71°33' W). *Tola* meadow, 3630 m, 22 January 1956, [1], (Kp 1366 b) (ZM 12).  
 38. Mejía (17°07' S, 71°55' W). Agricultural area, altitude at sea level, January 1956, coll. W.-D. v. Wedemeyer, [1], (Kp 1330 q) (ZM 6).  
 39. Near Mejía (17°07' S, 71°55' W), a park on a hill, 350-500 m, 15 January 1956, [6], (Kp 1350 aa) (ZM 10).

## Survey of species found

Family Bothriuridae SIMON, 1880

Genus *Brachistosternus* POCOCK, 1893

*Brachistosternus ehrenbergi* (GERVAIS, 1841)

**M a t e r i a l e x a m i n e d.** – Lachay (locality No.17), ♀; near Atico (34), ♀; juv. ♀, 2 juveniles; Atico (35), juv. ♂; Mejía (38): ♂.

**Distribution:** Widely distributed species in South America, known from Ecuador, Peru, Bolivia, Argentina and Chile.

*Brachistosternus* aff. *castroi* MELLO-LEITÃO, 1940

**Material examined.** – Quebrada Canchero (36): ♀, ♂, 2 juveniles; Chachani-Volcano (37): ♀.

Additional specimens should be examined for a conclusive taxonomic decision on this supposedly new species.

Genus *Orobothriurus* MAURY, 1975

*Orobothriurus curvidigitus* (KRAEPELIN, 1911)

**Material examined.** – By Mejía (39): 3 ♀.

**Distribution:** The species is known only from Peru.

*Orobothriurus* aff. *curvidigitus* (KRAEPELIN, 1911)

**Material examined.** – Chuquibamba (29): ♀, 2 juv. ♂; at Chuquibamba (29): ♀.

Probably a new species. Adult males are needed for exact identification.

*Orobothriurus paessleri* (KRAEPELIN, 1911)

**Material examined.** – Road between Chala and Cháparra (33): ♀; near Atico (34): ♀, one juvenile; Quebrada Yanganuco (9): ♀.

**Distribution:** Known only from Peru.

*Orobothriurus* aff. *paessleri* (KRAEPELIN, 1911)

**Material examined.** – Chala (32): ♀, ♂, juv. ♂.

Possibly a new species; more specimens should be examined for exact identification.

*Orobothriurus parvus* MAURY, 1975

**Material examined.** – Near Colcabamba (13): ♀.

**Distribution:** Reported only from Peru.

*Orobothriurus* aff. *parvus* MAURY, 1975

**Material examined.** – Zárata (15): ♀.

Supposedly a new species; additional specimens, particularly males, have to be examined for exact identification.

*Orobothriurus peruvianus* (MELLO-LEITÃO, 1948)

**Material examined.** – At Tarma (18): ♀ and one juvenile.

**Distribution:** Known only from Peru.

*Orobothriurus* sp.

**Material examined.** – Hacienda Llaguén (8): one juvenile; Zárata (19): one specimen, sex indet. Poorly preserved material does not allow any conclusive identification.

## Family Buthidae C. L. KOCH, 1837

Genus *Tityus* C. L. KOCH, 1836*Tityus ecuadorensis* KRAEPELIN, 1896

Material examined. – Huabual (4): ♀.

Distribution: Known from Ecuador and Peru.

*Tityus footei* CHAMBERLIN, 1916

Material examined. – Near Suyo (3): juvenile; Hacienda Huacraruco (7): ♀ and ♂.

Distribution: Known only from Peru.

*Tityus gasci* LOURENÇO, 1982

Material examined. – Panguana (14 d and 14 g): juvenile and ♂, respectively.

Distribution: The species was reported from the French Guyana, Brazil to Ecuador and Peru.

*Tityus metuendus* POCOCK, 1897

Material examined. – At Río Pachitea (11): juv. ♂; Panguana (14 a, 14 e, 14 f): ♀, juv. ♂ and ♂, respectively.

Distribution: Reported from Peru, Brazil and Bolivia.

*Tityus silvestris* POCOCK, 1897

Material examined. – Panguana (14 b): ♀ and ♂ (a new morph); Panguana (14 c): ♀.

Distribution: The species is known from French Guyana, Brazil, Ecuador and Peru.

*T. silvestris* is a polymorphic species, with a very wide distribution over the Amazon basin. The type of its polymorphism was defined as an “Ochlospecies“ by LOURENÇO (1988b). More than 25 morphs have been recognized till now. The two specimens from Panguana (14 b) represent a new morph, characterized by long metasomal segments which are extremely flattened laterally (Fig. 11).

*Tityus soratensis* KRAEPELIN, 1912

Material examined. – Machu Picchu (25): 2 ♀, received dead from tourists.

Distribution: The species is known from Peru and Bolivia.

## Family Iuridae THORELL, 1876

Genus *Hadruides* POCOCK, 1893*Hadruides carinatus* POCOCK, 1900

Material examined. – Chala (31 a): ♀ and ♂, 3 juveniles.

Distribution: Known only from Peru.

*Hadruides* aff. *carinatus* POCOCK, 1900

Material examined. – Hacienda San Damián (15): ♂.

Probably a new species; additional specimens are needed for exact identification.

*Hadruioides charcasus* (KARSCH, 1879)

**M a t e r i a l e x a m i n e d.** – Near Suyo (3): ♀, 2 ♂, 2 juveniles.

**D i s t r i b u t i o n:** Known from Peru and Bolivia.

*Hadruioides leopardus* POCOCK, 1900

**M a t e r i a l e x a m i n e d.** – Road between Chala and Cháparra (33): juvenile; Atico (35): juvenile; At Zárate (21): juv. ♀; by Angolo (2): ♀, 2 juveniles.

**D i s t r i b u t i o n:** Reported from Ecuador and Peru.

*Hadruioides lunatus* (L. KOCH, 1867)

**M a t e r i a l e x a m i n e d.** – Near Punta Negra (5): ♀; Lima (22): ♀; Catahuasi (24): ♀; by Mejía (39): juvenile; near Atocongo (23): ♀, 2 ♂, 7 juveniles (pigmentation faded); near Ticrapo (27): ♀; by Acarí (28): ♀, 4 juveniles; Chala (31 b): 3 ♀, 4 ♂.

**D i s t r i b u t i o n:** Widely distributed species in South America; apart from Peru known also from Ecuador, Bolivia and Chile.

*Hadruioides* aff. *lunatus* (L. KOCH, 1867)

**M a t e r i a l e x a m i n e d.** – Near Canchina (26): ♀ and ♂. Exact identification not possible as the material is poorly preserved.

Probably a new species.

*Hadruioides maculatus* (THORELL, 1876)

**M a t e r i a l e x a m i n e d.** – By Matapalo (1): 2 juveniles.

**D i s t r i b u t i o n:** Known from Ecuador and Peru.

*Hadruioides* sp.

**M a t e r i a l e x a m i n e d.** – San Martin Island (16): 3 juveniles; near Chongoyape (6): juvenile. All specimens poorly preserved.

## Family Chactidae POCOCK, 1893

Genus *Chactas* GERVAIS, 1844

**D i a g n o s i s.** – Median to large scorpions (50 mm in average) with 4 to 6 trichobothria on the venter of tibia. Fixed finger of pedipalps without an extra large accessory tooth. Male pedipalps very long and slender, compared to those of female.

**Note:** The diagnosis is based on a few characters only, but nevertheless separates *Chactas* well enough from *Teuthraustes* SIMON, 1878, also known from Peru and Ecuador. The genus *Teuthraustes* has a very strong tooth on the fixed finger of the pedipalp. On the other hand, the number of ventral trichobothria on the tibia distinguishes *Chactas* from *Brotheas* C. L. KOCH, 1837 and *Broteochactas* POCOCK, 1893.

Type species: *Chactas lepturus* THORELL, 1876

*Chactas koepcke* sp. nov.

(Figs 1-10, 12)

**H o l o t y p e.** – Male, 32.2 mm long, 28 July 1961, coll. H.-W. KOEPCKE, (Kp 1747 f) (ZM 35). Deposited in the Zoologisches Museum Hamburg, ZMH Acc. No. A87/00.

**T y p e l o c a l i t y.** – Central Peru (9°11' S, 75°47' W), La Divisoria (a pass over Cordillera Azul). Mesothermic (“subtropical”) rainforest, 1400 m a.s.l. (Locality No. 10).

**P a r a t y p e.** – Juvenile male, 13.4 mm long. Central Peru, Cerro del Sira, N summit (9°27' S, 74°41' W). Mountain tropical rainforest, c. 500-1000 m, July-August 1969, coll. C. TOFT (“comp. Kp 1951-1959”: no exact reference number provided) (ZM 44). (Locality No. 12). Deposited in the ZMH, Acc. No. A88/00.

**E t y m o l o g y.** – The specific name is a patronym in honour of the recently deceased Prof. Dr. HANS-WILHELM KOEPCKE, a former curator in the Department of Herpetology, Zoologisches Museum Hamburg.

**D i a g n o s i s.** – Median sized, reddish-brown *Chactas* with 7-8 teeth in pecten. Carinae on pedipalp only vestigial, chela smooth.

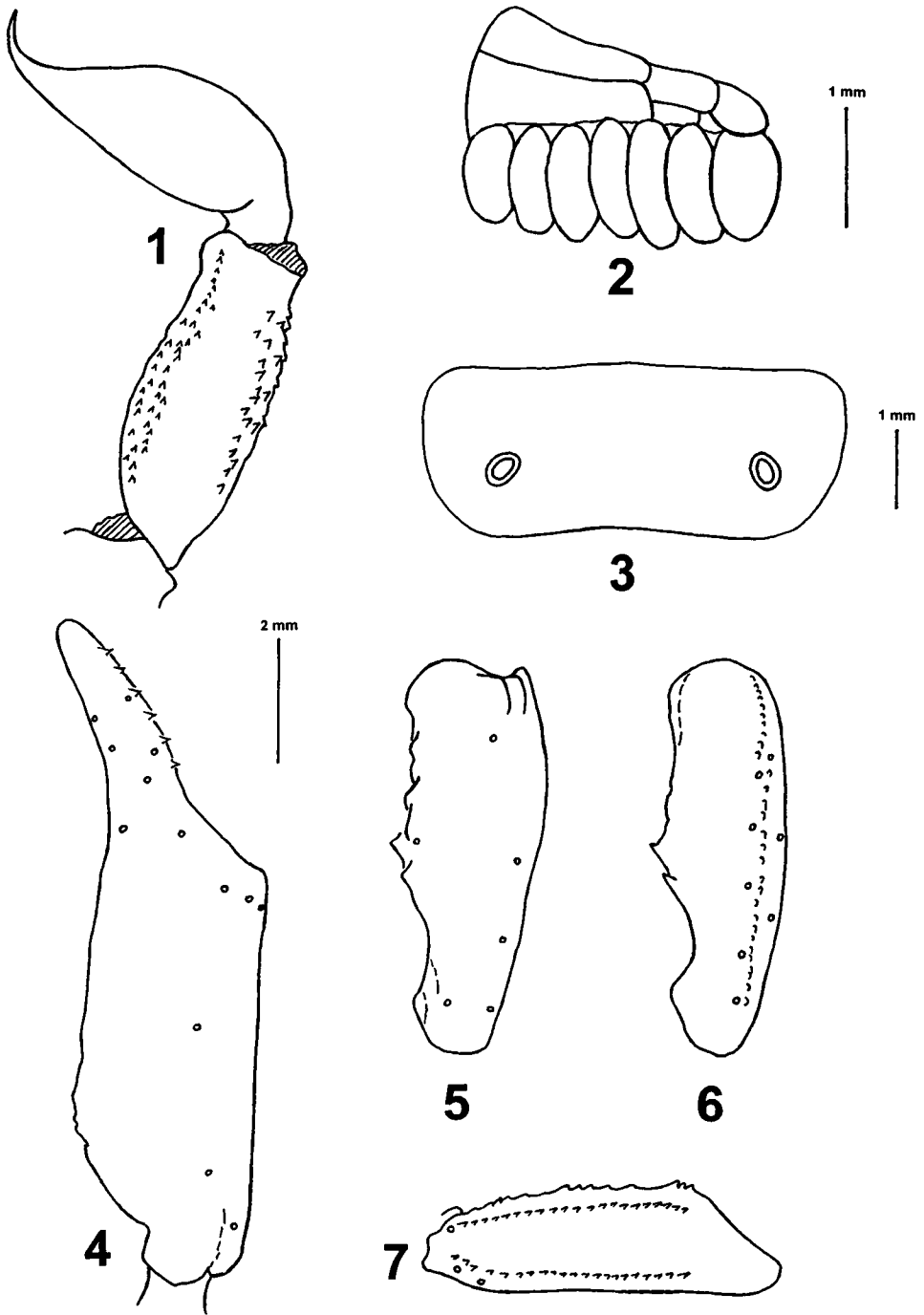
**D e s c r i p t i o n** (based on holotype male). – Total length 32.2 mm. Carapace: length 5.5 mm, its anterior width 3.8 mm, posterior width 5.9 mm. Metasomal segment I: length 2.6 mm, width 2.7 mm. Metasomal segment V: length 5.2 mm, width 2.2 mm, depth 2.3 mm. Vesicle: width 2.2 mm, depth 1.9 mm. Pedipalp: femur length 6.2 mm, femur width 1.8 mm, tibia length 6.7 mm, tibia width 2.0 mm, chela length 11.8 mm, chela width 2.8 mm, chela depth 2.7 mm; movable finger length 5.1 mm.

**Coloration**

Body basically reddish-brown. Prosoma: carapace dark-brown, except for anterior zone which is brown-yellow; some blackish pigment near the eyes and posterior furrows. Mesosoma: tergites brownish, lighter than carapace, with a median longitudinal yellowish stripe; sternites III-IV dark-yellow, with reddish furrows; sternite VII reddish-yellow. Coxapophysis yellowish; sternum and genital operculum reddish-yellow. Metasoma: all segments reddish, with some blackish pigment over the dorsal carinae; vesicle reddish-yellow. Chelicerae yellowish with some variegated reddish-brown spots; fingers reddish-brown. Pedipalps: femur and tibia dark-reddish with the presence of blackish pigment over the carinae; chela reddish. Legs yellowish, with some reddish pigment on the articulations.

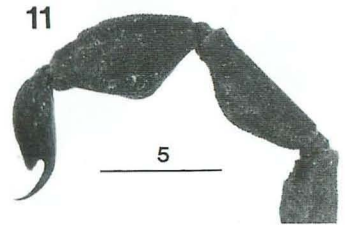
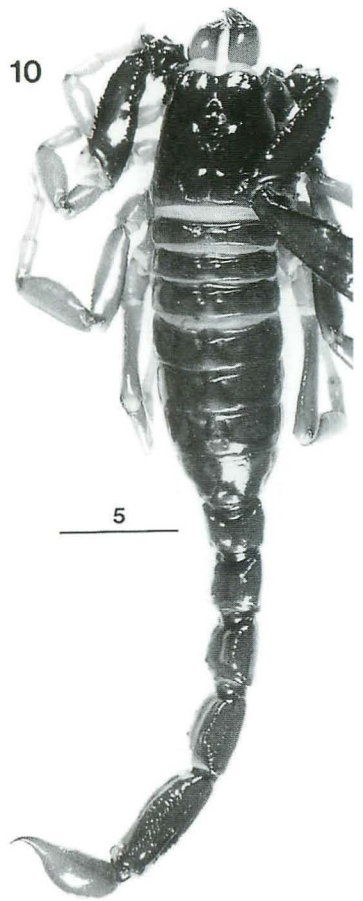
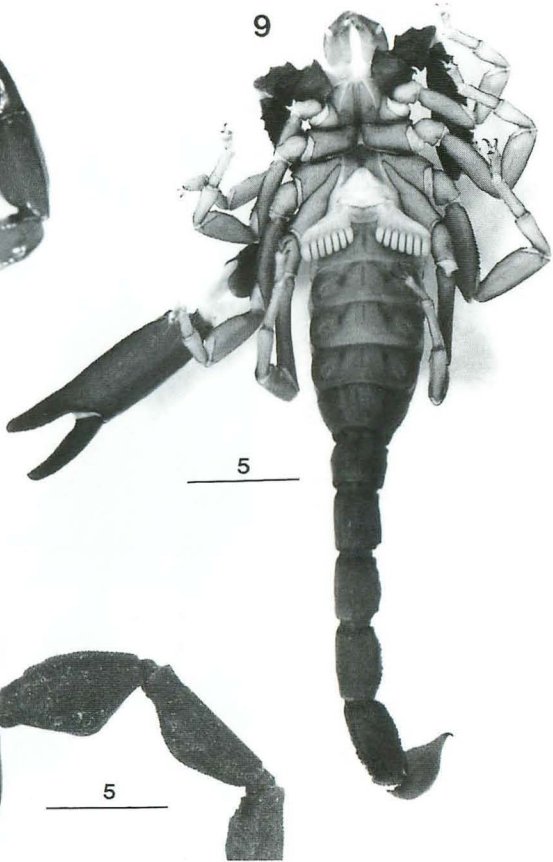
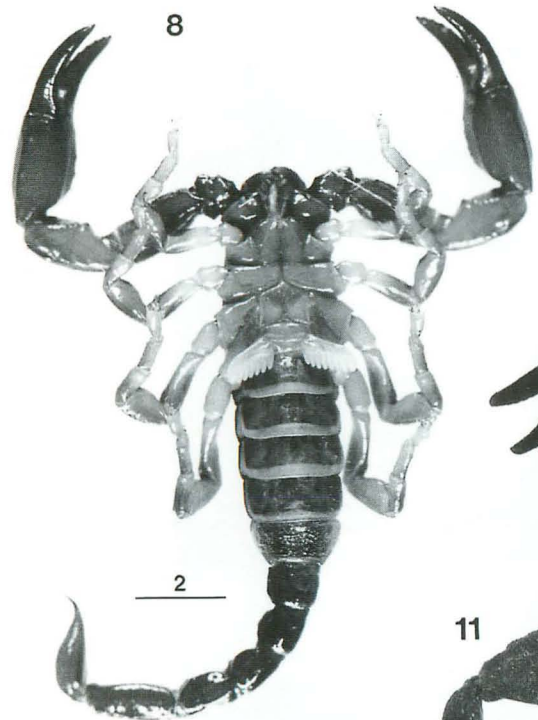
**Morphology**

Carapace lustrous and acarinate; anterior margin with a weakly pronounced concavity; carinae absent; furrows moderately pronounced; median ocular tubercle distinctly anterior to center of the carapace; two pairs of large lateral eyes, only slightly smaller than median eyes. Mesosoma: sternum pentagonal, wider than long. Tergites acarinate, smooth and shiny; granulations absent, except a few very minute granules on the central area of tergites V-VII; tergite VII with 4 extremely vestigial carinae which bears one granule on the posterior half. Venter: genital operculum divided longitudinally (Fig. 12), each half of roughly triangular shape. Pectines (Figs 2, 8, 9): pectinal tooth count 7-7; fulcra vestigial. Sternites smooth and shiny, with oval spiracles (Figs 3,12); IV-VI with two parallel furrows. Metasoma: dorsal carinae granular in segments I-IV with one or two posterior spinoid granules; vestigial



**Figs 1-7.** *Chactas koepcke* sp. nov. (holotype ♂). 1- metasomal segment V and telson, lateral view; 2- pecten, 3- sternite V with spiracles; 4-7 pedipalp, trichobothrial pattern: chela, dorsal view (4); tibia, dorsal (5) and ventral view (6); femur, dorsal view (7).



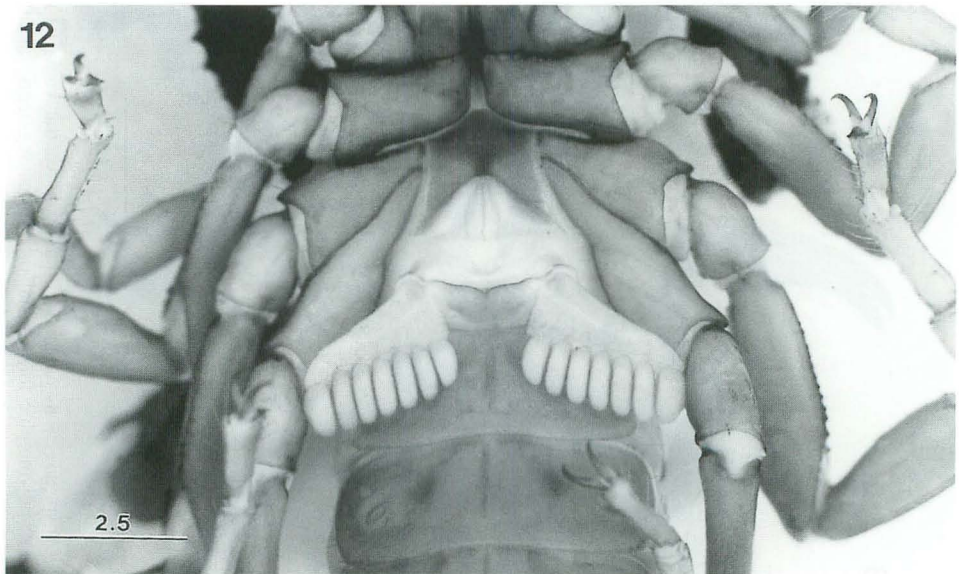


Figs 8-11. *Chactas koepckei* sp. nov. – 8- juvenile  $\sigma$ , paratype, ventral view; 9, 10- adult  $\sigma$ , holotype, ventrum and dorsum, respectively; chelae detached. 11- *Tityus silvestris* POCOCK: polymorphic form, distal metasomal segments, lateral view. (Scale bars in mm).

on segment V; ventral carinae absent on segments I-IV; latero-dorsal and posterior half of ventral surfaces of segment V with a strong spinoid granulation; all intercarinal surfaces smooth. Telson elongated (Figs 1, 8, 10) with some very thin granulations, almost smooth; aculeus proportionally short. Cheliceral dentition characteristic of the family Chactidae (VACHON 1963); movable finger with two subdistal teeth of the same size and a basal tooth reduced. Pedipalps smooth; femur (Fig. 7) pentacarinata with all carinae complete; tibia (Figs 5, 6) with only internal carinae complete, others vestigial; chela (Fig. 4) with vestigial carinae; movable finger with 7/8 rows of granules almost linear. Trichobothriotaxy of type C; neobothriotaxi (Vachon 1974); tibia with 5 ventral trichobothria. Legs: tarsi of legs III and IV with one central linear row of small spines, surrounded by several setae irregularly arranged.

Juvenile male, paratype. Coloration similar to the holotype, only somewhat lighter and less reddish; pectines with 7 and 8 teeth each.

**Differential diagnosis.** – *Chactas koepcke* sp. nov. differs from other congeners, particularly *Ch. brevicaudatus* (KARSCH, 1879), reported also from Peru (but see “Remarks”), by the following characters: (i) a smaller number of teeth in the pectines, 7-8 (in *C. brevicaudatus* the average is 9), (ii) much less elongated male pedipalps, (iii) distinctly less marked pedipalp carinae, (iv) much less stocky vesicle and (v) larger lateral eyes.



**Fig. 12.** *Chactas koepcke* sp. nov. – Adult ♂ (holotype): genital region. (Scale bar in mm).

**Remarks.** – Among 109 Peruvian scorpions examined, 88 represent 16 known and one new species. Of the remaining 21 scorpions, 15 individuals belong to additional six taxa, identified here only tentatively, but probably they represent other new species. New comparative material may clear their taxonomic status. All examined species represent

four genera and two families. Of six taxa tentatively identified, four belong to the family Bothriuridae and two to the Iuridae. Among the Bothriuridae there is one such a species in the genus *Branchistosternus*, very similar to *B. castroi*, and three species in the genus *Orobthriurus*, closely resembling *O. curvidigitus*, *O. paessleri* and *O. parvus*. In the Iuridae two species belong to the genus *Hadruioides*, being very similar to *H. carinatus* and *H. lunulatus*. Their description is at this stage postponed either due to the lack of males in some samples (the taxonomy of bothriurids and iurids is based mainly on the characters of male genitalia), the availability of juveniles only or poorly preserved specimens in some other samples.

The presence of *Chactas brevicaudatus* in Peru, the species which is very similar to *Ch. koepcke* sp. nov., needs comment. The former taxon is known from Peru only through the report of MELLO-LEITÃO (1945). However, one of us (LOURENÇO 1991) had already suggested that *Ch. brevicaudatus* is an endemic species to the region known as "Santa Marta Center" in Colombia. Consequently, its record for Peru provided by MELLO-LEITÃO (l.c.) should be considered a misidentification. Nevertheless, one cannot exclude that the *Chactas* species cited by MELLO-LEITÃO corresponds to the new species described here.

Almost all species examined here are already known from Peru. Nonetheless most of localities listed in this paper are new and provide additional information on the distribution of particular species. Two records of the new species of *Chactas* are, as far as we know, the first such confirmed information about the presence of this genus in Peru.

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