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# Two new species of *Hadruioides* Pocock, 1893 from Peru and Ecuador (Scorpiones, Caraboctonidae)

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## Keywords:

Scorpiones; new species;  
Caraboctonidae; description;  
*Hadruioides*; morphology;  
*inti*; Peru;  
*pachamama*; Ecuador.  
taxonomy;

**Abstract.** – Two new species belonging to the genus *Hadruioides* Pocock, 1893 (family Caraboctonidae Kraepelin, 1905) are described on the basis of specimens collected in Arequipa region in southern Peru, and Loja province in southern Ecuador. *H. inti* **sp. n.** represents the 17<sup>th</sup> known species of the genus *Hadruioides* reported from Peru, and the 22<sup>nd</sup> species of the subgenus *Lourencoides* Rossi, 2014. *H. pachamama* **sp. n.** represents the 7<sup>th</sup> known species of the genus *Hadruioides* reported from Ecuador, and the second species of the subgenus *Hadruioides* Rossi, 2014. The total number of *Hadruioides* species is now raised to 24.

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ZooBank: <http://zoobank.org/DE00C062-37E3-4A1A-BADA-3C94640E5024>

## Introduction

The genus *Hadruioides* Pocock, 1893, originally included in the family Iuridae Thorell, 1876, was transferred to the new family Caraboctonidae Kraepelin, 1905 (formerly a subfamily of Iuridae; Soleglad & Fet, 2003a) together with the genera *Caraboctonus* Pocock, 1893 and *Hadrurus* Thorell, 1876, later joined by a new genus *Hoffmannihadrurus* Fet & Soleglad, 2004 consisting of two species formerly placed in the genus *Hadrurus*.

Within the family Caraboctonidae, these four genera were placed in two subfamilies: the South-American genera *Hadruioides* and *Caraboctonus* were included in Caraboctoninae Kraepelin, 1905, comprising small to medium size scorpions up to 80 mm in total length (Maury, 1975; Lourenço, 1995; Ochoa & Prendini, 2010), while the North-American genera *Hadrurus* and *Hoffmannihadrurus* were included in Hadrurinae Stahnke, 1974, comprising large scorpions often exceeding 120 mm in total length (Francke & Prendini, 2008; Fet & Soleglad, 2008). The subfamily Hadrurinae was then elevated to family status (Santibanez-Lopez et al., 2020) and the family Caraboctonidae now only comprises the two genera *Hadruioides* and *Caraboctonus*.

The genus *Hadruioides* currently comprises 22 species distributed in Ecuador, Peru and Chile (Rossi, 2012, 2014). In the present paper, two new species are described on the basis of specimens collected in Arequipa region in southern Peru (*H. inti* **sp. n.**) and Loja province in southern Ecuador (*H. pachamama* **sp. n.**).

In the revision of the genus *Hadruioides* in Peru, Ochoa & Prendini (2010) reported an undescribed species from the coastal desert of southern Peru (Arequipa and Tacna regions) and northern Chile; this most probably corresponds to the new species described in the present paper, at least in the Arequipa region. In the revision of the genus *Hadruioides* in Ecuador, Rossi (2014) reported the species *H. charcasus* (Karsch, 1879), inhabiting dry forests of northern Peru, to also occur in Macará, Loja province, Ecuador; this most probably concerns the new species described in the present paper.

*H. inti* **sp. n.** represents the 17<sup>th</sup> known species of the genus *Hadruioides* from Peru, and the 22<sup>nd</sup> species of the subgenus *Lourencoides* Rossi, 2014. *H. pachamama* **sp. n.** represents the 7<sup>th</sup> known species of the genus *Hadruioides* reported from Ecuador, and the second species of the subgenus *Hadruioides* Rossi, 2014. The total number of *Hadruioides* species is now raised to 24.

## Materials and methods

Illustrations and measurements were produced using a Motic DM143 digital stereo-microscope together with a Canon EOS 7D camera and a Wacom Intuos drawing tablet. Map was made using Google Maps and Adobe Photoshop software. Measurements follow Stahnke (1970) and are given in mm. Trichobothrial notations follow Vachon (1974), morphological terminology mostly follows Vachon (1952) and Hjelle (1990), and chelicerae dentition follows Vachon (1963). Specimens studied herein are deposited in the following collections: MHNL (Musée d'Histoire Naturelle de Lyon (Musée des Confluences), CCEC, Lyon, France) and EYPC (Eric Ythier Private Collection, Romanèche-Thorins, France).

## Taxonomy

Family **Caraboctonidae** Kraepelin, 1905

Genus ***Hadruioides*** Pocock, 1893

**Diagnosis for the genus.** – Scorpions of small to medium size with a total length ranging from 29 to 58 mm in subgenus *Lourencoides* and from 58 to 80 mm in subgenus *Hadruioides*. Anterior margin of carapace slightly convex, with three pairs of lateral ocelli. Sternum subpentagonal with Y-shaped sulcus (Soleglad & Fet, 2003b). Metasomal segment V with complete, granular ventrolateral and ventromedian carinae. Telson slightly concave dorsally, with short aculeus. Internal surface of cheliceral movable fingers with two subdistal teeth and one

prominent basal tooth. Pedipalp chela acarinate, smooth and relatively slender in subgenus *Lourencooides*; robust and rounded with well-developed internomedian, dorsointernal and dorsal marginal carinae in subgenus *Hadruioides*. Pedipalp chela movable finger with 6 or 7 longitudinal series of granules and variable number of accessory denticles. Trichobothrial pattern of type C, neobothriotaxic (Vachon, 1974).

**Composition of the genus *Hadruioides*** (in order of description)

- *H. (Lourencooides) lunatus* (Koch, 1867) (Peru: Lima);
- *H. (Lourencooides) maculatus* (Thorell, 1876) (Ecuador: Guayas, Manabí, Santa Elena);
- *H. (Hadruioides) charcasus* (Karsch, 1879) (Peru: Lambayeque, Piura, Tumbes?);
- *H. (Lourencooides) carinatus* Pocock, 1900 (Peru: Cajamarca);
- *H. (Lourencooides) leopardus* Pocock, 1900 (Peru: Lambayeque);
- *H. (Lourencooides) galapagoensis* Maury, 1975 (Ecuador: Galápagos);
- *H. (Lourencooides) aguilari* Francke & Soleglad, 1980 (Peru: Lima);
- *H. (Lourencooides) mauri* Francke & Soleglad, 1980 (Peru: Cusco);
- *H. (Lourencooides) udvardyi* Lourenço, 1995 (Ecuador: Azuay, Loja);
- *H. (Lourencooides) bustamantei* Ochoa & Chaparro, 2008 (Peru: Ayacucho, Huancavelica);
- *H. (Lourencooides) chinchaysuyu* Ochoa & Prendini, 2010 (Peru: Tumbes);
- *H. (Lourencooides) geckoi* Ochoa & Prendini, 2010 (Peru: Cajamarca);
- *H. (Lourencooides) graceae* Ochoa & Prendini, 2010 (Peru: Ancash);
- *H. (Lourencooides) juanchaparro* Ochoa & Prendini, 2010 (Peru: Ancash, Trujillo);
- *H. (Lourencooides) tishqu* Ochoa & Prendini, 2010 (Peru: Ancash: Isla Santa);
- *H. (Lourencooides) vichayitos* Ochoa & Prendini, 2010 (Peru: Piura);
- *H. (Lourencooides) adrianae* Rossi, 2012 (Peru: Ica);
- *H. (Lourencooides) lourencoi* Rossi, 2012 (Peru: Junín);
- *H. (Lourencooides) tongiorgii* Rossi, 2012 (Peru: Junín);
- *H. (Lourencooides) doriai* Rossi, 2014 (Ecuador: El Oro);
- *H. (Lourencooides) elenae* Rossi, 2014 (Ecuador: Santa Elena);
- *H. (Lourencooides) moreti* Rossi, 2014 (Ecuador: Bolívar);
- *H. (Lourencooides) inti* sp. n. (Peru: Arequipa);
- *H. (Hadruioides) pachamama* sp. n. (Ecuador: Loja).

***Hadruioides (Lourencooides) inti* sp. n.**

(Fig. 1-4, 7-11, 16, Tab. 1)

ZooBank: <http://zoobank.org/FA68F76C-7347-433A-B448-5EBB095B79A8>

*Hadruioides* sp.: Ochoa & Prendini, 2010: 42; Rossi, 2012: 16.

**Holotype**, ♂, Peru, Arequipa, South Camana and Tanaka, *J.-B. Lacroix* leg. (No. 164), 1993 (MHNL).

**Paratypes** (11 ex.)

- 1 ♀, 2 juveniles ♀, Peru, Arequipa, South Camana and Tanaka, *J.-B. Lacroix* leg. (No. 164), 1993 (MHNL);
- 5 ♀, 3 juveniles ♀, Peru, Arequipa, Atico, *J.-B. Lacroix* leg. (No. 161), 1993, EY0268 (EYPC).

**Diagnosis.** – Species of moderate size when compared with the average size of the other species of the genus; total length of adult male 42.3 mm, adult female 38.2–47.0 mm (see measurements of male holotype and one female paratype in table 1). General coloration yellowish to yellowish brown with darker pigmented

zones on carapace, mesosoma and metasoma. Mesosoma yellowish with two submedian and two sublateral dark spots on tergites I–VI; the distance between submedian spot and sublateral spot on tergites III–VI is about two times the width of a submedian spot. Metasomal segments I–V yellowish brown with dark spots along all ventral carinae. Pectines with 14–14 teeth in male, 10 to 12 teeth in female. Sternites smooth. Metasomal segments I–II wider than long, III–V longer than wide; segment V length to width ratio 2.18 in male, 2.01–2.03 in female; segments I–V total length to segment V length ratio 3.02 in male, 3.16–3.19 in female. Pedipalp femur with three complete carinae; patella with four complete carinae; chela acarinate. Chela length to width ratio 3.18 in male, 3.38–3.41 in female. Chela movable finger with 6 longitudinal series of granules; fixed fingers curved in both sexes, creating a distinct proximal gap with movable finger when fingers are closed; sexual dimorphism present with gap more evident in male than in female.

**Description based on male holotype and six females paratypes.**

**Coloration.** – General coloration yellowish to yellowish brown with darker pigmented zones on carapace, mesosoma and metasoma. Prosoma: carapace yellowish with dark spots on posterior and lateral areas; eyes surrounded by black pigment. Mesosoma yellowish with four dark spots on tergites I–VI: two small rectangular submedian spots and two larger irregular sublateral spots; the distance between submedian spot and sublateral spot on tergites III–VI is about two times the width of a submedian spot. Metasomal segments I–V yellowish brown with dark spots along all ventral carinae. Vesicle yellowish brown with the base of the aculeus yellowish and the tip reddish. Venter yellowish to yellowish brown. Chelicerae uniformly yellowish without reticulation; fingers yellowish with teeth reddish. Pedipalps: femur yellowish, patella and chela yellowish brown. Legs uniformly yellowish.

**Morphology.** – Carapace densely granulated except for anterior third which is smooth; anterior margin slightly convex. Median eyes separated by slightly more than one ocular diameter. Three pairs of lateral eyes. Mesosoma: tergites I–VI with anterior area almost smooth, several granules on posterior and lateral areas; tergite VII coarsely granular. Sternum subpentagonal. Pectines: pectinal teeth count 14–14 in male, 10–12 in female (2x10, 6x11, 4x12). Sternites smooth; spiracles oval. Metasomal segments I–IV with marked dorsal and dorsolateral carinae; ventral and ventrolateral carinae smooth; segment V with dorsal and ventral carinae scarcely granulated. Metasomal segments I–II wider than long, III–V longer than wide; segment V length to width ratio 2.18 in male, 2.01–2.03 in female; segments I–V total length to segment V length ratio 3.02 in male, 3.16–3.19 in female. Telson moderately elongated; vesicle almost smooth in male with only few sparse granules on ventral surface; female with vesicle well granulated ventrally. Cheliceral dentition characteristic of the genus; movable finger with two subdistal teeth and one prominent basal tooth on internal surface; dorsal surface with two macrosetae near base of fingers. Pedipalps: femur with three complete carinae; patella with four complete carinae; chela acarinate. Pedipalp femur and patella weakly granulated; chela smooth. Chela length to width ratio 3.18 in male, 3.38–3.41 in female. Chela movable finger with 6 longitudinal series of granules; fixed fingers curved in both sexes, creating a distinct proximal gap with movable finger when fingers are closed; sexual dimorphism present with gap more evident in male than in female. Trichobothriosity: typical of the genus; femur with three trichobothria, patella with 20 trichobothria, chela with 26 trichobothria. Legs: tibial spurs absent, prolateral and retrolateral pedal spurs present.

**Etymology.** – The specific name is placed in apposition to the generic name and refers to the Incan sun god.

**Comparisons.** – *Hadruioides (L.) inti* sp. n. appears to be closely related to *Hadruioides (L.) adrianae* Rossi, 2012, described from Ica region and *Hadruioides (L.) lunatus* (Koch, 1867), distributed in Lima region. All three species may represent vicariant species.



**Fig. 1-4.** *Hadruioides (L.) inti* sp. n., habitus.

1-2) ♂ holotype: 1) dorsal aspect; 2) ventral aspect. 3-4) ♀ paratype: 3) dorsal aspect; 4) ventral aspect.



**Fig. 5-6.** *Hadruioides (H.) pachamama* sp. n., ♀ holotype, habitus.

5) dorsal aspect. 6) ventral aspect.

- The new species can however be distinguished from *H. (L.) adrianae* by the following main features:

- (i) submedian spots larger than in *H. (L.) adrianae* with distance between submedian spot and sublateral spot on tergites III-VI about two times the width of a submedian spot (about three times the width of a submedian spot in *H. (L.) adrianae*);
- (ii) metasomal segments I-V with dark spots along all ventral carinae (very light grey spots, scarcely visible, surrounding the insertion of setae on ventral aspect of segment I-IV in *H. (L.) adrianae*);
- (iii) metasomal segment V shorter in both sexes (metasoma total length/segment V length ratio 3.02 in male, 3.16-3.19 in female) than in *H. (L.) adrianae* (metasoma total length/segment V length ratio 2.91 in male, 2.93 in female);
- (iv) chela larger in both sexes (length/width ratio 3.18 in male, 3.38-3.41 in female) than in *H. (L.) adrianae* (length/width ratio 3.58-3.60 in male, 3.51 in female).

- *H. (L.) inti* sp. n. can also be readily distinguished from *H. (L.) lunatus* by the following main features:

- (i) submedian spots narrower than in *H. (L.) lunatus* with distance between submedian spot and sublateral spot on tergites III-VI about two times the width of a submedian spot (about as the width of a submedian spot in *H. (L.) lunatus*);
- (ii) metasomal segments I-V with dark spots along all ventral carinae (no pigmentation on ventral surface of metasomal segment I in *H. (L.) lunatus*);
- (iii) male chela larger (length/width ratio 3.18; see table 1) than in *H. (L.) lunatus* (length/width ratio 3.44-3.54);
- (iv) gap between chela fixed and movable fingers well visible in female (hardly evident in female *H. (L.) lunatus*).

Records of *Hadruioides* from the coastal desert of southern Peru (Arequipa, Tacna) and northern Chile, corresponding to undescribed species related to *H. (L.) lunatus* (Ochoa, 2005; Ochoa & Prendini, 2010), most probably correspond to the new species described in the present paper, at least in the Arequipa region.

### *Hadruioides (Hadruioides) pachamama* sp. n.

(Fig. 5-6, 12-15, 17, Tab. 1)

ZooBank: <http://zoobank.org/95757149-F19B-470B-AA4B-5D3561ACF215>

*Hadruioides (H.) charcasus* (Karsch, 1879): Rossi, 2014: 197; Brito & Borges, 2015: 10.

**Holotype**, ♀, Ecuador, Loja, Macará, *J.-B. Lacroix* leg. (No. 344), 1993 (MHNL).

**Paratype**, 1 juvenile ♀, Ecuador, Loja, Catacocha, *J.-B. Lacroix* leg. (No. 344), 1993, EY0324 (EYPC).

**Comparative material examined**. – *H. (H.) charcasus*, Peru, Lambayeque, 1 ♀ (EYPC).

**Diagnosis**. – Species of moderate to large size when compared with the average size of the other species of the genus; total length of adult female 57.90 mm (see measurements of female holotype in table 1). General coloration yellowish brown to reddish brown with darker pigmented zones on carapace, mesosoma and metasoma. Mesosoma reddish brown with darker pigmentation covering tergites I-VI almost entirely. Legs uniformly yellowish. Tergites I-VI smooth medially, with several granules on lateral areas. Pectines with 18 to 19 teeth in female, male unknown. All sternites smooth except sternite VII, with few fine granules posterolaterally and bigger granules forming vestigial ventrolateral carinae. Metasomal segment I wider than long, II-V longer than wide; segment V length to width ratio 2.18; segments I-V total length to segment V length ratio 3.18. Telson vesicle bulbous with length to width ratio 2.16 and

length to depth ratio 2.86. Pedipalp chela robust and rounded with well-developed internomedian, dorsointernal and dorsal marginal carinae; few sparse granules on internal surface, distributed in two areas, one small area around the base of movable finger and one larger area around the base of fixed finger; chela length to width ratio 3.09. Chela movable finger with 6 longitudinal series of granules; fixed fingers slightly curved but without creating a proximal gap with movable finger when fingers are closed.

### **Description based on female holotype.**

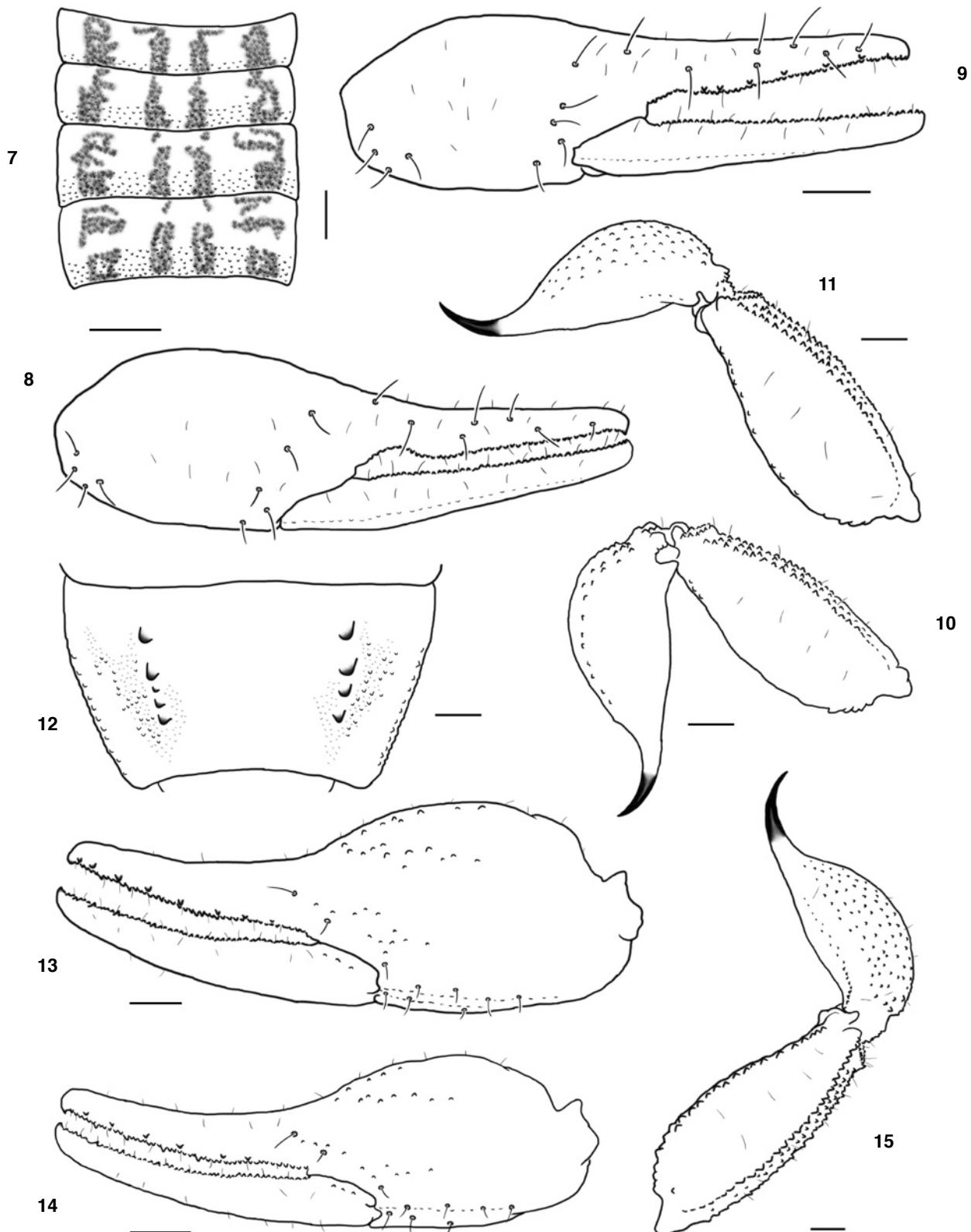
**Coloration**. – General coloration yellowish brown to reddish brown with darker pigmented zones on carapace, mesosoma and metasoma. Prosoma: carapace reddish brown; eyes surrounded by black pigment. Mesosoma reddish brown with darker pigmentation covering tergites I-VI almost entirely, except for two small oval submedian spots and two larger irregular sublateral spots, reddish brown; tergite VII yellowish brown, slightly darker on anterior third. Metasomal segments I-V yellowish brown with reddish brown pigmentation on ventral carinae. Vesicle yellowish with ventral granulation reddish; base of the aculeus reddish yellow and the tip reddish. Venter yellowish to yellowish brown. Chelicerae uniformly yellowish brown without reticulation; fingers yellowish brown with teeth reddish. Pedipalps: femur and patella yellowish brown with granulation reddish; chela reddish brown with granulation and fingers reddish. Legs uniformly yellowish.

**Morphology**. – Carapace densely granulated except for anterior third which is smooth; anterior margin slightly convex. Median eyes separated by slightly more than one ocular diameter. Three pairs of lateral eyes. Mesosoma: tergites I-VI smooth medially, several granules on lateral areas; tergite VII coarsely granular. Sternum subpentagonal. Pectines: pectinal teeth count 18-18. All sternites smooth except sternite VII, with few fine granules posterolaterally and bigger granules forming vestigial ventrolateral carinae; spiracles oval. Metasomal segments I-IV with dorsal, dorsolateral and ventrolateral carinae complete; intermediate carinae almost complete in segment I, present on distal half of segment II and on distal third of segment III; ventrolateral carinae granulated in segment I, smooth in segments II-III, granulated on distal third of segment IV; segment V with dorsal and ventral carinae scarcely granulated. Metasomal segment I wider than long, II-V longer than wide; segment V length to width ratio 2.18; segments I-V total length to segment V length ratio 3.18. Telson moderately elongated; vesicle bulbous with length to width ratio 2.16 and length to depth ratio 2.86, with ventral surface entirely covered with granules. Cheliceral dentition characteristic of the genus; movable finger with two subdistal teeth and one prominent basal tooth on internal surface; dorsal surface with two macrosetae near base of fingers. Pedipalps: femur with three complete carinae; patella with four complete carinae; chela robust and rounded with well-developed internomedian, dorsointernal and dorsal marginal carinae. Chela with few sparse granules on internal surface, distributed in two areas, one small area around the base of movable finger and one larger area around the base of fixed finger. Chela length to width ratio 3.09. Chela movable finger with 6 longitudinal series of granules; fixed fingers slightly curved but without creating a proximal gap with movable finger when fingers are closed. Trichobothriataxy: typical of the genus; femur with three trichobothria, patella with 20 trichobothria, chela with 26 trichobothria. Legs: tibial spurs absent, prolateral and retrolateral pedal spurs present.

**Etymology**. – The specific name is placed in apposition to the generic name and refers to the Incan earth goddess.

**Comparisons**. – *Hadruioides (H.) pachamama* sp. n. appears to be closely related to *Hadruioides (H.) charcasus* (Karsch, 1879) distributed in northern Peru, in Lambayeque and Piura regions (record from Tumbes region seems dubious). Both species may represent vicariant species but the new species can however be distinguished from *H. (H.) charcasus* by the following main features:

- (i) smaller size with total length of adult female 57.90 mm (59-80 mm in total length for *H. (H.) charcasus*, females being usually larger than males);
- (ii) tergites I-VI entirely smooth medially and generally less granulated than in *H. (H.) charcasus*;



**Fig. 7-11.** *Hadruioides (L.) inti* sp. n.

7) Tergites III-VI showing the pigmentation pattern, ♀ paratype. 8-9) Right pedipalp chela, external aspect, showing the trichobothrial pattern: 8) ♂ holotype; 9) ♀ paratype. 10-11) Metasomal segment V and telson, lateral aspect: 10) ♂ holotype; 11) ♀ paratype. Scale bars = 1 mm.

**Fig. 12-15.** *Hadruioides (H.) pachamama* sp. n.

12) Sternite VII showing the vestigial ventrolateral carinae, ♀ holotype. 13-14) Right pedipalp chela, ventrointernal aspect, showing the granulation and trichobothrial pattern: 13) ♀ holotype; 14) Juvenile ♀ paratype. 15) Metasomal segment V and telson, lateral aspect, ♀ holotype. Scale bars = 1 mm.

- (iii) sternite VII with few granules forming vestigial ventrolateral carinae (no carinae in female *H. (H.) charcasus*);
- (iv) metasomal segment V shorter (metasoma total length/segment V length ratio 3.18) than in *H. (H.) charcasus* (female metasoma total length/segment V length ratio 2.88);
- (v) telson vesicle more bulbous (length/width ratio 2.16, length/depth ratio 2.86) than in *H. (H.) charcasus* (female vesicle length/width ratio 2.44, length/depth ratio 3.14);
- (vi) internal surface of pedipalp chela generally less granulated (few sparse granules) than in female *H. (H.) charcasus* (well granulated).

In addition to the described features, specimens examined during the present study were collected at elevations between about 445 m (Macará) and 1875 m (Catacocha). Specimens of *H. (H.) charcasus* examined by Ochoa & Prendini (2010) in northern Peru were reported to occur between 15–498 m. It is then assumed that *H. (H.) charcasus* distribution is limited to the equatorial dry forest ecoregion of northern Peru at elevations below about 500 m, while *H. (H.) pachamama* **sp. n.** occurs at elevations above 400–500 m. Record of *H. (H.) charcasus* from Macará, Loja province, Ecuador (Rossi, 2014; reported in Brito & Borges, 2015) most probably concerns the new species described in the present paper.

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## Résumé

Ythier E., 2021. – Deux nouvelles espèces d'*Hadruioides* Pocock, 1893 du Pérou et d'Equateur (Scorpiones, Caraboctonidae). *Faunitaxys*, 9(11): 1–8.

Deux nouvelles espèces appartenant au genre *Hadruioides* Pocock, 1893 (famille Caraboctonidae Kraepelin, 1905) sont décrites sur la base de spécimens collectés dans la région d'Arequipa dans le sud du Pérou, et dans la province de Loja dans le sud de l'Equateur. *H. inti* **sp. n.** représente la 17<sup>e</sup> espèce décrite pour le genre *Hadruioides* au Pérou, et la 22<sup>e</sup> espèce décrite pour le sous-genre *Lourencoides* Rossi, 2014. *H. pachamama* **sp. n.** représente la 7<sup>e</sup> espèce décrite pour le genre *Hadruioides* en Equateur, et la deuxième espèce décrite pour le sous-genre *Hadruioides* Rossi, 2014. Le nombre d'espèces appartenant au genre *Hadruioides* est porté à 24.

Mots clés. – Scorpiones, Caraboctonidae, *Hadruioides*, *inti*, *pachamama*, taxonomie, nouvelle espèce, description, morphologie, Pérou, Equateur.





**Fig. 16.** Map of southern Peru showing the known distribution of *Hadruoides* species in the region, including the type localities of *Hadruoides (L.) inti* sp. n. (stars).



**Fig. 17.** Map of southern Ecuador and northern Peru showing the known distribution of *Hadruoides* species in the region, including the type localities of *Hadruoides (H.) pachamama* sp. n. (stars).

	<i>Hadruioides (L.) inti</i> sp. n.		<i>Hadruioides (H.) pachamama</i> sp. n.
	♂ holotype	♀ paratype	♀ holotype
Total length	42.25	47.0	57.90
Carapace (L - W)	5.55 - 4.90	6.15 - 6.05	7.45 - 7.15
Mesosoma (L)	11.25	13.6	15.30
Metasoma:			
- segment I (L - W)	2.70 - 3.40	3.15 - 3.60	3.85 - 4.55
- segment II (L - W)	2.90 - 3.15	3.30 - 3.35	4.40 - 4.25
- segment III (L - W)	3.15 - 3.05	3.35 - 3.25	4.55 - 4.35
- segment IV (L - W)	3.75 - 2.85	4.25 - 3.15	5.50 - 4.15
- segment V (L - W)	6.20 - 2.85	6.50 - 3.20	8.40 - 3.85
Telson (L - W - D)	6.75 - 2.90 - 2.35	6.70 - 3.20 - 2.40	8.45 - 3.90 - 2.95
Pedipalp:			
- femur (L - W)	4.20 - 1.50	4.45 - 1.60	5.55 - 2.30
- patella (L - W)	5.20 - 2.05	5.30 - 2.30	6.50 - 2.85
- chela (L - W - D)	8.10 - 2.55 - 2.45	8.70 - 2.55 - 2.70	11.60 - 3.75 - 4.40
- movable finger (L)	4.95	5.40	7.10
Ratios:			
- metasomal segment I L/W	0.79	0.88	0.85
- metasomal segment II L/W	0.92	0.99	1.04
- metasomal segment III L/W	1.03	1.03	1.05
- metasomal segment IV L/W	1.32	1.35	1.33
- metasomal segment V L/W	2.18	2.03	2.18
- metasoma L / segment V L	3.02	3.16	3.18
- telson vesicle L / W	2.33	2.09	2.16
- telson vesicle L / D	2.87	2.79	2.86
- chela L / W	3.18	3.41	3.09
- chela L / D	3.31	3.22	2.64
- chela L / movable finger L	1.64	1.61	1.63

**Table 1.** Morphometric values (mm) and selected morphometric ratios of adult specimens of *Hadruioides (L.) inti* sp. n. (♂ holotype and one ♀ paratype) and *Hadruioides (H.) pachamama* sp. n. (♀ holotype).

Abbreviations: length (L), width (W, in carapace it corresponds to posterior width, in telson it corresponds to vesicle width), depth (D, in telson it corresponds to vesicle depth).

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