

## A NEW SPECIES OF *ANANTERIS* THORELL, 1891 (SCORPIONES, BUTHIDAE) FROM THE STATE OF MARANHÃO, BRAZIL

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**Abstract:** A new species, *Ananteris bianchinii* sp. n. (Scorpiones, Buthidae) is described from the 'Parque Estadual Mirador' in the State of Maranhão, Brazil. Only one species, *Ananteris maranhensis* Lourenço, 1987 was previously recorded from the State of Maranhão, and was collected in a region covered by Amazon forest. The new species, instead, was collected in a 'cerrado' (savannah-like) formation. The total number of *Ananteris* species distributed in Brazil is now raised to 17.

**Key words:** Scorpiones, Buthidae, *Ananteris*, new species, Maranhão, Brazil.

### Una especie nueva de *Ananteris* Thorell, 1891 (Scorpiones, Buthidae) del estado de Maranhão, Brasil

**Resumen:** Se describe una especie nueva, *Ananteris bianchinii* sp. n. (Scorpiones, Buthidae) del 'Parque Estadual Mirador', en el estado de Maranhão, Brasil. Con anterioridad sólo se había registrado del estado de Maranhão una especie, *Ananteris maranhensis* Lourenço, 1987, que se colectó en una región cubierta de selva amazónica. La especie nueva, en cambio, se ha colectado en una formación de 'cerrado' (vegetación de tipo sabana). El número total de especies de *Ananteris* presentes en Brazil se eleva así a 17.

**Palabras clave:** Scorpiones, Buthidae, *Ananteris*, especie nueva, Maranhão, Brasil.

**Taxonomy / Taxonomía:** *Ananteris bianchinii* sp. n.

### Introduction

In a recent publication (Giupponi *et al.*, 2009) a global synthesis about the *Ananteris* species distributed in Brazil was proposed. Three new species were described and the total number of known species from Brazil was raised to 16. In this contribution a new species of *Ananteris* is described from the State of Maranhão, representing the second to be recorded from this Brazilian state (Lourenço, 1987). For a complete list of the known *Ananteris* species distributed in Brazil report to Giupponi *et al.* (2009).

### Methods

Illustrations and measurements were made with the aid of a Wild M5 stereo-microscope with a drawing tube (camera lucida) and an ocular micrometer. Measurements follow Stahnke (1970) and are given in mm. Trichobothrial notations follow Vachon (1974) and morphological terminology mostly follows Vachon (1952) and Hjelle (1990).

### Taxonomic treatment

Family BUTHIDAE C. L. Koch, 1837

Genus *Ananteris* Thorell, 1891

#### *Ananteris bianchinii* sp. n.

Fig. 1-5, 7.

**TYPE MATERIAL:** Male holotype. Brazil, State of Maranhão, Parque Estadual Mirador, Base da Geraldina (pitfall

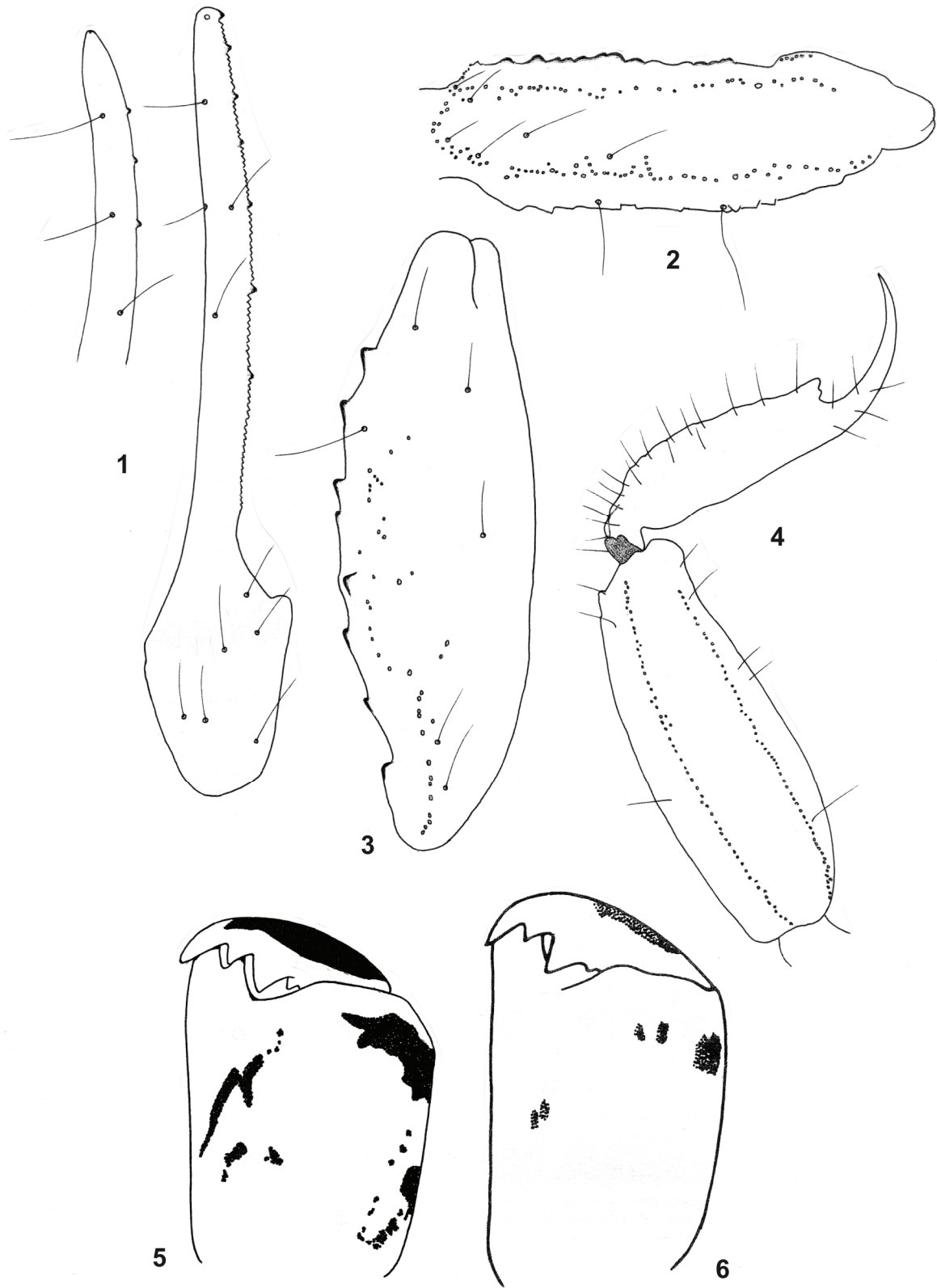
trap), 27/X-1/XI/2008 (M. B. Aguiar-Neto). Deposited in the 'Coleção Zoológica do Maranhão' - CZMA.

The vegetation in the 'Parque Estadual Mirador' is dominated by the 'cerrados' (savannah-like formations) with the presence of gallery forests. The scorpion was collected in a transition zone between 'cerrados' and gallery forests.

The specific name is a patronym of Mr. Mario Luciano Bianchini, Manager of 'AGRO SERRA', who provided facilities during the field studies in the 'Parque Estadual do Mirador'.

**DIAGNOSIS:** Species of moderate size when compared with the average size of the other species of the genus with 23.1 (19.8 without telson) mm in total length (see Table I). General coloration yellowish to reddish-yellow with intense variegated dark pigmentation. Pedipalps short and slender, specially chelae; fingers with 6 rows of granules; male with 16-16 pectinal teeth.

The new species can be distinguished from other known species of the genus, and in particular from *A. maranhensis*, which is also distributed in the State of Maranhão by: (i) a different pattern of pigmentation with body and appendages more intensely spotted, (ii) pedipalp fingers with 6 rows of granules against 7 in *A. maranhensis*, (iii) carapace, tergites and legs strongly granulated (iv) metasomal segments I and II with 10 carinae. Besides, the new species inhabits a 'cerrado' (savannah-like) formation, whereas *A. maranhensis* is found in an Amazon forest formation. By its pattern of pigmentation and morphological



**Fig. 1-5.** *Ananteris bianchini* sp. n. Male holotype. 1-3. Trichobothrial pattern. 1. Chela dorso-external aspect; on left side detail of fixed finger, dorsal aspect. 2. Femur, dorsal aspect. 3. Patella, dorsal aspect. 4. Metasomal segment V and telson, lateral aspect. 5. Chelicera, dorsal aspect, showing pattern of pigmentation. 6. Idem for *A. maranhensis*. Female holotype.

characters, the new species shows some similarities with *Ananteris mariaterrezae* Lourenço, 1982. This last species, however, is endemic to the ‘Pantanal type’ formations of ‘Ilha do Bananal’ and Mato Grosso do Sul State in Brazil.

**DESCRIPTION** based on male holotype.

**Measurements** in Table I.

**Coloration.** Generally yellowish to reddish-yellow with dark brown to blackish pigmented zones on the body and appendages. Prosoma: carapace yellowish with dark brown spots better marked on the lateral and edges; eyes surrounded by black pigment. Mesosoma: yellowish with confluent blackish zones on the posterior and lateral edges of tergites. Metasoma: segments I to IV yellowish; segment V reddish-yellow, all segments intensely marked with dark brown spots. Vesicle reddish-yellow without spots; the base of the aculeus yellowish and the tip reddish. Venter yellowish; sternite VII with very diffused brownish spots. Chelicerae yellowish with some variegated blackish spots over the lateral surfaces, better marked on the base of movable fingers; fingers with blackish spots; teeth reddish. Pedipalps: yellowish; femur, patella and chela hand with densely marked blackish-brown spots; fingers reddish-yellow. Legs yellowish, intensely marked with blackish-brown spots.

**Morphology.** Carapace with strongly marked granulation; anterior margin not emarginated, almost straight. Anterior median, superciliary and posterior median carinae weak or absent. All furrows moderate. Median ocular tubercle distinctly anterior to the centre of the carapace; median eyes separated by less than one ocular diameter. Three pairs of lateral eyes. Sternum subpentagonal to pentagonal. Mesosoma: tergites with strongly marked granulation. Median carina moderate to strong. Tergite VII pentacarinata. Venter: genital operculum divided longitudinally, each plate more or less sub-triangular in shape. Pectines: pectinal tooth count 16-16; basal middle lamellae of the pectines not dilated; fulcra absent. Sternites smooth; spiracles weakly elongate; setation weak; sternite VII with inconspicuous carinae. Metasoma: segments I and II with 10 carinae, moderately crenulate. Segments III and IV with 8 carinae, moderately crenulate. Intercarinal spaces slightly granular, almost smooth. Segment V slightly rounded with five carinae. Telson strongly elongated and without granulations; with one ventral carina weakly marked; aculeus short and moderately curved; subaculear tooth strong and moderately spinoid. Cheliceral dentition characteristic of the family Buthidae (Vachon, 1963); fixed finger with two moderate basal teeth; movable finger with two weak basal teeth; ventral aspect of both finger and manus with dense, long setae. Pedipalps: femur pentacarinata; patella and chela with weak vestigial carinae; internal face of patella with four minute spinoid granules; all faces slightly granular, almost smooth. Fixed and movable fingers with 6 almost linear rows of granules; two small external and one internal accessory granule present at the base of each row; three granules in the extremity of the fingers; Trichobothriotaxy; orthobothriotaxy A-β (beta) (Vachon, 1974, 1975). Legs: tarsus with very numerous fine median setae ventrally. Tibial spurs moderately to strongly developed on legs III and IV.

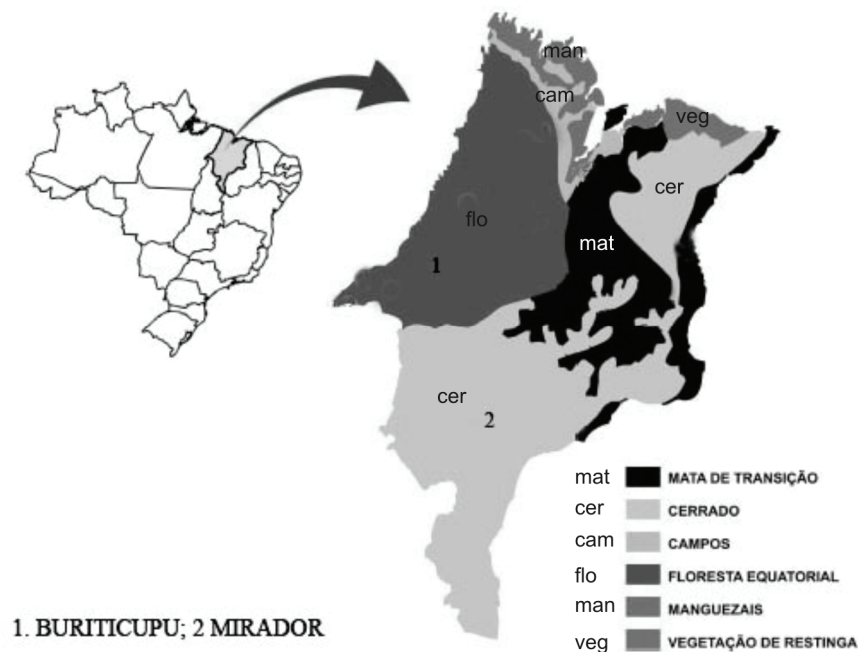
**Table I. Morphometric values (in mm) of the male holotype of *Ananteris bianchinii* sp. n. and of the female holotype of *Ananteris maranhensis*.**

	<i>A. bianchinii</i> sp. n.	<i>A.</i> <i>maranhensis</i>
Total length	23.1(*19.8)	33.6(*28.9)
Carapace:		
- length	2.6	3.7
- anterior width	1.7	2.5
- posterior width	2.6	4.2
Metasomal segment I:		
- length	1.3	2.3
- width	1.6	2.2
Metasomal segment V:		
- length	3.8	4.8
- width	1.3	1.8
- depth	1.3	1.8
Telson		
- length	3.3	4.7
Vesicle:		
- width	0.9	1.0
- depth	0.7	1.0
Pedipalp:		
- Femur length	2.3	3.3
- Femur width	0.7	1.0
- Patella length	2.8	4.2
- Patella width	0.9	1.3
- Chela length	3.5	5.5
- Chela width	0.6	0.8
- Chela depth	0.6	0.8
Movable finger:		
- length	2.6	4.2

(\* without telson)

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**Fig. 7.** Vegetation map of the State of Maranhão (after, Martins *et al.*, 2009), showing the type localities of *A. maranhensis* (1) and *A. bianchinii* sp. n. (2), respectively in Amazon rain forest and ‘cerrados’.

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