

Description of a new species of *Ananteris* Thorell, 1891, from Suriname (Scorpiones, Buthidae)

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Abstract. – A new species belonging to the genus *Ananteris* Thorell is described from a sandy dry forest formation located in Pierre Kondre, nearby Carolina, Para District in Suriname, a site located near the Suriname river. The description of this new species brings further evidence about the biogeographic patterns of distribution presented by most species of the genus *Ananteris*, which are highly endemic in most natural formations of South America. The new species is the second one of the genus *Ananteris* to be described from Suriname.

Résumé. – Description d'une nouvelle espèce d'*Ananteris* Thorell, 1891, du Suriname (Scorpiones, Buthidae).

Une nouvelle espèce appartenant au genre *Ananteris* Thorell est décrite sur la base de matériel collecté dans une forêt sèche sur sable à Pierre Kondre, proche de Carolina, District de Para, Suriname, un site proche du fleuve Suriname. La description de cette nouvelle espèce apporte des informations supplémentaires quant au modèle de répartition biogéographique présenté par la plupart des espèces du genre *Ananteris*, hautement endémiques dans la plupart des formations naturelles d'Amérique du Sud. Cette nouvelle espèce est la seconde décrite pour le genre *Ananteris* au Suriname.

Keywords. – Scorpion, taxonomy, morphology, endemism, Guiana Shield.

As already outlined in recent publications (LOURENÇO *et al.*, 2013; LOURENÇO, 2015; YTHIER, 2018; LOURENÇO & MOTTA, 2019; YTHIER *et al.*, 2020), after the creation of the genus *Ananteris* Thorell, 1891, and the description of *Ananteris balzanii* Thorell, 1891, from the State of Mato Grosso in Brazil (THORELL, 1891), the group remained inconspicuous by the very limited number of species (three) and this until the 1970s. Nevertheless, the number of species described within the genus steadily increased after its original revision by LOURENÇO (1982).

In recent years, only a rather limited number of species were described from the 'Guayana Region' (sense MORI, 1991). Besides, most of the described species were from French Guiana (LOURENÇO, 1982, 1983, 2001, 2003, 2012a, 2016; LOURENÇO & MONOD, 1999; YTHIER, 2018; YTHIER *et al.* 2020), with a few exceptions from Brazil, Guyana and Suriname (LOURENÇO & DUHEM, 2010; LOURENÇO, 2012b, 2013). The pace of descriptions from the Guayana Region was much less intense than in other regions mainly because the inventory work in the area is practically non-existent.

With the exclusion of the species described from French Guiana (YTHIER, 2018; YTHIER *et al.*, 2020), the other species also described from the Guiana Shield were *Ananteris roraima* Lourenço & Duhem, 2010, from the Brazilian State of Roraima, *A. surinamensis* Lourenço,

2012, from Suriname, *A. michaelae* Lourenço, 2013, from Guyana and *A. venezuelensis* González-Sponga, 1972, from Venezuela and Guyana. Consequently, only one species of *Ananteris* was previously known from Suriname. In the present note we describe another species from Suriname; this new species appears as a possible vicariant element with *Ananteris sabineae* Lourenço, 2001, described from the Mitaraka Massif in the south western region of French Guiana (LOURENÇO, 2001).

MATERIAL AND METHODS

Illustrations and measurements were produced using a Wild M5 stereomicroscope with a drawing tube and an ocular micrometre. 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). The specimen studied herein is deposited in the National Zoological Collection of Suriname, Paramaribo, Suriname (NZCS).

TAXONOMY

Family **Buthidae** C. L. Koch, 1837

Genus *Ananteris* Thorell, 1891

Ananteris pierrekondre n. sp. (fig. 1-9)

<http://zoobank.org/FC85D78D-866F-45A0-950E-EE334DB09E38>

HOLOTYPE: ♀, Suriname, Para District, Pierre Kondre (near Carolina) [5°27'N 54°59'W], near Suriname River, sandy dry forest formation, II.2018, *X. Desbois, M. Desbois & J. Read coll.* (NZCS).

Diagnosis. – Species of moderate to large size when compared with the average size of the other species of the genus; female with 29.2 mm in total length (see measurements after the description). General coloration yellow with intense dark pigmentation over body and appendages; chelicerae pale yellow without any variegated pigmentation. Pedipalps moderately long and slender; fixed and movable fingers of pedipalps with 6-6 rows of granules; female pectines with respectively 17-18 teeth. Telson intensely granulated with spinoid granules on the ventral carina.

Description of the female holotype. – *Coloration.* Generally yellow with dark brown pigmented zones on the body and its appendages. Prosoma: carapace yellow with dark brown spots on its entire surface; eyes surrounded by black pigment. Mesosoma: yellow with three longitudinal brownish strips, the lateral being larger than the median one. Metasomal segments I to V yellow; all segments marked with dark brown spots, more or less variegated; spots more intensely marked on IV-V. Vesicle yellow with ventral carina slightly darker and some marbled zones laterally; base of the aculeus yellow with a pale red tip. Venter yellow; sternite VII with two conspicuous brownish spots laterally. Chelicerae uniformly yellow without spots; fingers dark reddish with paler teeth. Pedipalps: yellow; femur and patella with densely marked brownish spots; chela hand with diffused brownish spots; fingers yellow. Legs yellow, with strongly marked brownish spots.

Morphology. Carapace with a more or less intense granulation; anterior margin slightly emarginated with a minute central convexity. Anterior median superciliary and posterior median carinae weak. All furrows moderate to weak. Median ocular tubercle distinctly anterior to the centre of the carapace; median eyes large and separated by approximately one ocular diameter. Three pairs of lateral eyes. Sternum subpentagonal. Mesosoma: tergites with an intense granulation. Median carina moderate in all tergites. Tergite VII pentacarinata and slightly less granulate. Venter: genital operculum divided longitudinally, each plate more or less oval. Pectines: pectinal teeth count 17-18 in female; basal middle lamellae of the pectines not dilated; fulcras absent. Sternites smooth; spiracles weakly elongate; setation strong; sternite VII

with moderately marked carinae and strong granulations. Metasomal segment I with 10 carinae, strongly crenulate. Segments II to IV with 8 carinae, strongly crenulate. Intercarinal spaces moderately to strongly granular. Segment V slightly rounded with 5 carinae. Telson moderately elongated and with a strongly marked granulation; ventral carina strongly marked with some spinoid granules; aculeus short and weakly curved; subaculear tooth strong and spinoid (fig. 9). Cheliceral dentition characteristic of the family Buthidae (VACHON, 1963); fixed finger with two strong basal teeth; movable finger with two well-marked basal teeth (fig. 3); ventral aspect of both finger and manus with dense, long setae. Pedipalps: femur pentacarinat; patella and chela with weak to vestigial carinae; internal face of patella with 8-9 minute spinoid granules; all faces weakly granular, almost smooth. Fixed and movable fingers with 6-6 almost linear rows of granules (fig. 8); two small external and one internal accessory granule present at the base of each row; three conspicuous 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 strongly developed on legs III and IV.



Fig. 1-2. – *Ananteris pierrekondre* n. sp., ♀ holotype, habitus. – 1, Dorsal aspect. – 2, Ventral aspect. Scale bar = 1 cm.

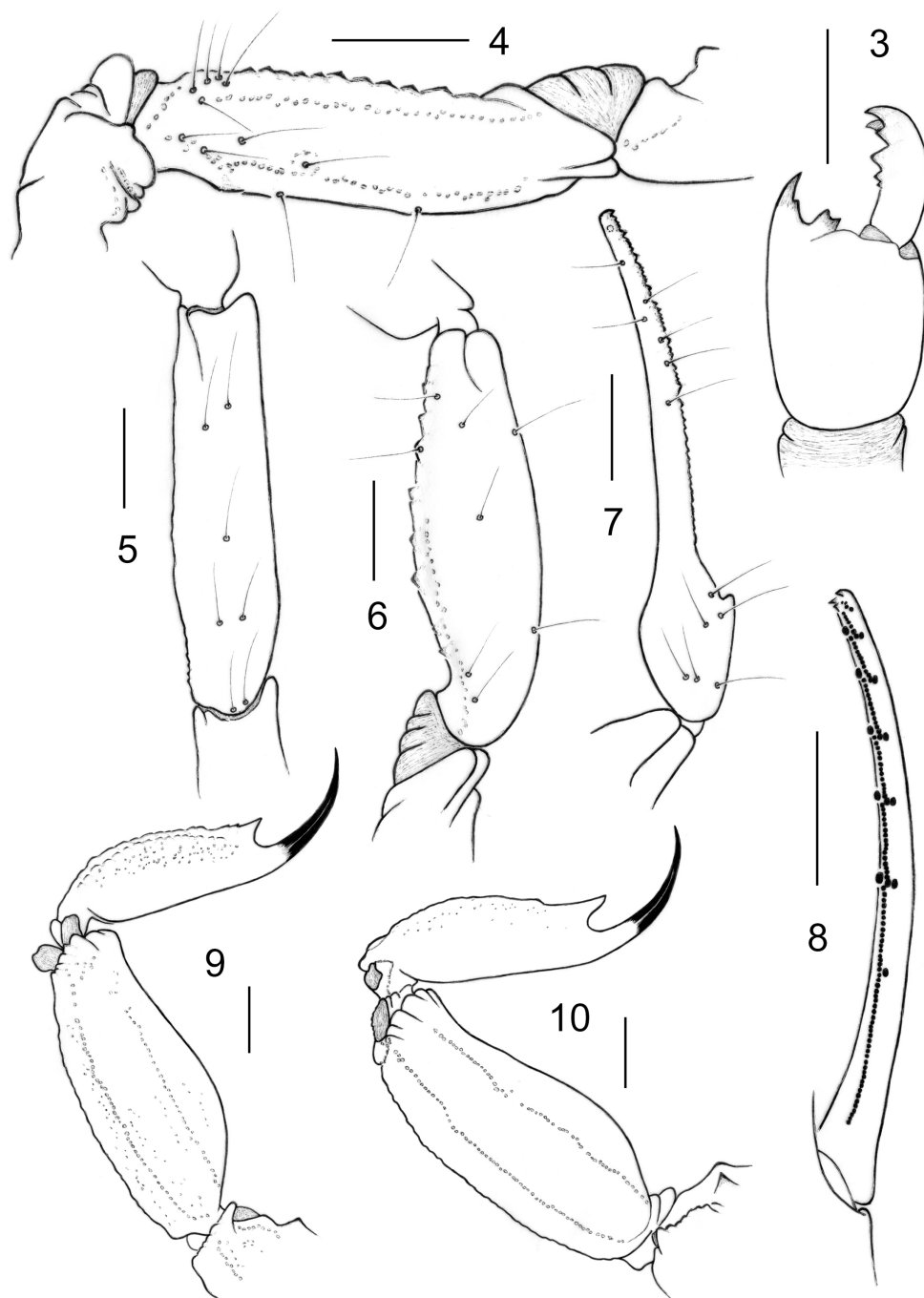


Fig. 3-10. – *Ananteris* spp. – 3-9, *A. pierrecondre* n. sp., ♀ holotype: 3, right chelicera, dorsal aspect; 4, right femur, dorsal aspect; 5-6, right patella (5, external aspect; 6, dorsal aspect); 7, right chela, dorso-external aspect; 8, cutting edge of right chela movable finger with rows of granules; 9, metasomal segment V and telson, lateral aspect. – 10, *A. sabineae* Lourenço, ♀ holotype, metasomal segment V and telson, lateral aspect. Scale bars = 1 mm except chelicera 0.5 mm.

Comparative morphometric values of the female holotypes of *Ananteris sabineae* and *A. pierrekondre* n. sp. – Total length including the telson, 32.6/29.2. Carapace: length 3.8/3.8; anterior width 2.4/2.3; posterior width 3.8/3.3. Mesosoma length: 8.8/6.2. Metasomal segments. I: length 1.8/2.0, width 2.3/2.2; II: length 2.3/2.2, width 2.2/2.1; III: length 2.5/2.4, width 2.2/2.1; IV: length 3.6/3.3, width 2.2/2.1; V: length, 4.9/4.8, width 2.2/2.0, depth 2.1/1.8. Telson length 4.9/4.5; vesicle: width 1.2/1.3, depth 1.1/1.1. Pedipalp: femur length 3.5/3.5, width 1.0/1.0; patella length 4.4/4.1, width 1.3/1.2; chela length 5.2/5.0, width 0.8/0.8, depth 0.8/0.9. Movable finger length 4.0/3.9.

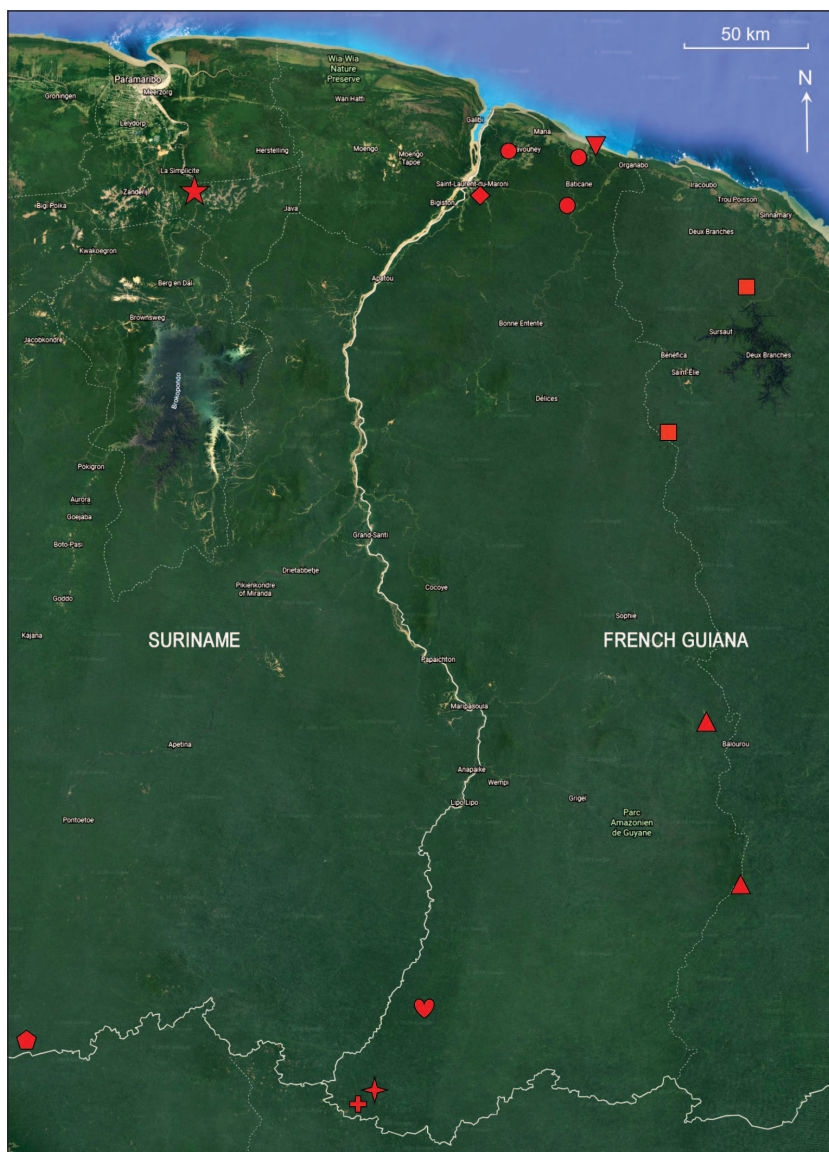


Fig. 11. – Map of Eastern Suriname and Western French Guiana showing the distribution of *A. pierrekondre* n. sp. (five-pointed star), *A. surinamensis* Lourenço (pentagon), *A. coineau* Lourenço (triangles), *A. guyanensis* Lourenço & Monod (squares), *A. intermedia* Lourenço (diamond), *A. kalina* Ythier (inverted triangle), *A. mamilihpan* Ythier, Chevalier & Lourenço (heart), *A. polleti* Lourenço (cross), *A. sabineae* Lourenço (four-pointed star) and *A. sipilili* Ythier, Chevalier & Lourenço (circles).

Etymology. – The specific name is placed in apposition to the generic name and refers to the Amerindian village of Pierre Kondre, where the new species was collected.

Relationships. – *Ananteris pierrekondre* n. sp. appears to be closely related to *A. sabineae* Lourenço, 2001, described from the region of the Mitaraka massif in south western French Guiana. Both species may represent vicariant species. The new species can however be distinguished from *A. sabineae* by the following main features: (i) a different pattern of pigmentation, with spots more intensely marked in the new species, in particular on metasomal segments and sternite VII, (ii) telson strongly granular with the ventral carina marked by some spinoid granules (fig. 9), (iii) the position of some trichobothria differs; in the new species *em* on the external face of patella is clearly more proximal (fig. 5). It was also observed that the new species strongly reacts to UV light whereas in *A. sabineae* this reaction proved to be very weak.

Ananteris pierrekondre n. sp. can also be readily distinguished from other species of the genus *Ananteris* described from Suriname and from the western part of French Guiana, by the following main features: (i) chelicerae uniformly yellow without spots (variegated dark brown spots on chelicerae of *A. surinamensis* Lourenço, 2012, *A. coineau* Lourenço, 1982, *A. guyanensis* Lourenço & Monod, 1999, *A. intermedia* Lourenço, 2012, *A. kalina* Ythier, 2018, *A. mamilihpan* Ythier, Chevalier & Lourenço, 2020 and *A. polleti* Lourenço, 2016), (ii) intense dark pigmentation over body and appendages (pigmented zones lighter and much less marked in *A. sipilili* Ythier, Chevalier & Lourenço, 2020).

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