

## A review of the geographical distribution of the genus *Ananteris* Thorelli (Scorpiones: Buthidae), with description of a new species

Wilson R. Lourenço

Université Pierre et Marie Curie, U.F.R. des Sciences de la Vie, 4 Place Jussieu, F - 75252 Paris Cedex 05, France.

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**Abstract:** A checklist of the species belonging to the genus *Ananteris* Thorell is proposed. Populations from Costa Rica and Panama previously considered as *Ananteris ashmolei* Lourenço are placed as a new species *Ananteris platnicki*. Diagnoses: The new species differs from *A. cussinii* and *A. columbianus* by having a darker pigmentation. It differs from *A. ashmolei* by having a telson moderately granular whereas *ashmolei*'s telson presents a strong ventral keel with some spinoid teeth, both species also differ for almost all the morphometric values. A map of the geographical distribution of the genus is included.

**Key words:** *Ananteris* scorpions, taxonomy, biogeography.

The genus *Ananteris* Thorell, 1891 was based on *Ananteris balzani* from Mato Grosso State in Brazil. Until the description of *A. venezuelensis* Gonzalez-Sponga, 1972 from Venezuela, only three species were known. A revision of the genus by Lourenço (1982), substantially enlarged the range of distribution, and raised the total number of species to twelve.

Since then four new species have been added, and *Ananteroides* Borelli from Bissau in Africa, with the single species *A. feae* Borelli, was synonymized with *Ananteris* (Lourenço, 1985), raising the number of species to 17 and expanding still further the range of distribution.

In the 1982 revision I stated:\* "L'étude de nombreux exemplaires d'*Ananteris* capturés en Colombie, Panama et Costa Rica, que nous avons rapportés à l'espèce *A. ashmolei* nous a

montré l'existence d'un couloir de distribution, avec des formes en gradient... Notre première réaction à l'égard du matériel de Costa Rica a été de proposer une nouvelle espèce.....Seule, l'étude d'un matériel beaucoup plus important, associé à l'étude de son écologie, pourra montrer l'existence ou non de véritables formes indépendantes." In their monograph on the scorpions of Costa Rica, Francke and Stockwell (1987) accepted my 1982 decision and redescribed the *Ananteris* from Costa Rica as *A. ashmolei*.

Since the 1982 revision, extensive field work has been done, especially in Colombia. These recent studies show that the gradients suggested by Lourenço (1982) correspond in fact to different populations which are not closely related to either *A. ashmolei* from Ecuador or *A. cussinii* Borelli from Venezuela. Two new species were described: *A. gorgonae* Lourenço and Florez (1989) from Gorgona Island and *A. columbianus* Lourenço (1991) from Santa Marta, Colombia.

In this paper the status of *Ananteris* populations from Panama and Costa Rica is reconsidered and a new species is proposed and described. A checklist is presented of *Ananteris*

\* The study of many specimens of *Ananteris* from Colombia, Panama and Costa Rica, assigned to *A. ashmolei*, has shown the existence of a distributional corridor, with gradient forms... My first reaction to the Costa Rican material was to describe a new species... Only the study of more important material, together with ecological analysis, may show the existence of truly independent forms...

species, and a review of the geographical distribution of the genus is presented in Fig. 7.

Checklist of the species of *Ananteris* Thorell, 1891.

*A. balzani* Thorell, 1891: Brazil, Paraguay, Argentina, Bolivia and French Guyana.

*A. festae* Borelli, 1899: Chimborazo, Ecuador.

*A. cussinii* Borelli, 1910: Venezuela, Trinidad.

*A. feae* (Borelli, 1911): Bissau, Guinea, Ivory Coast.

*A. venezuelensis* Gonzalez-Sponga, 1972: Venezuela, Guiana.

*A. turumbanensis* Gonzalez-Sponga, 1980: Venezuela.

*A. ashmolei* Lourenço, 1981: Los Tayos, Ecuador.

*A. mariaterezae* Lourenço, 1982: Goiás and Mato Grosso, Brazil.

*A. franckei* Lourenço, 1982: Pernambuco, Brazil.

*A. maury* Lourenço, 1982: Paraíba and Rio Grande do Norte, Brazil.

*A. dekeyseri* Lourenço, 1982: Manaus, Brazil.

*A. pydanieli* Lourenço, 1982: Brazil and French Guyana.

*A. coineaui* Lourenço, 1982: French Guyana.

*A. luciae* Lourenço, 1984: Pará, Brazil.

*A. maranhaensis* Lourenço, 1987: Maranhão, Brazil.

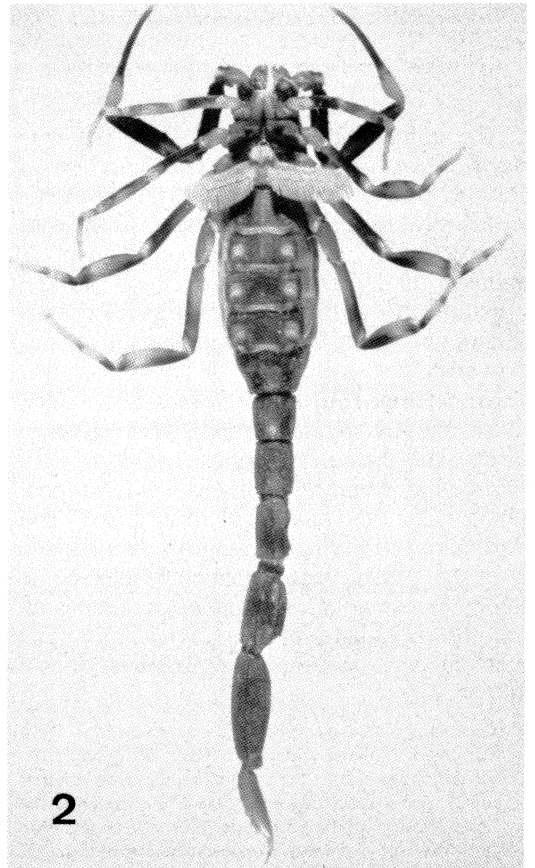
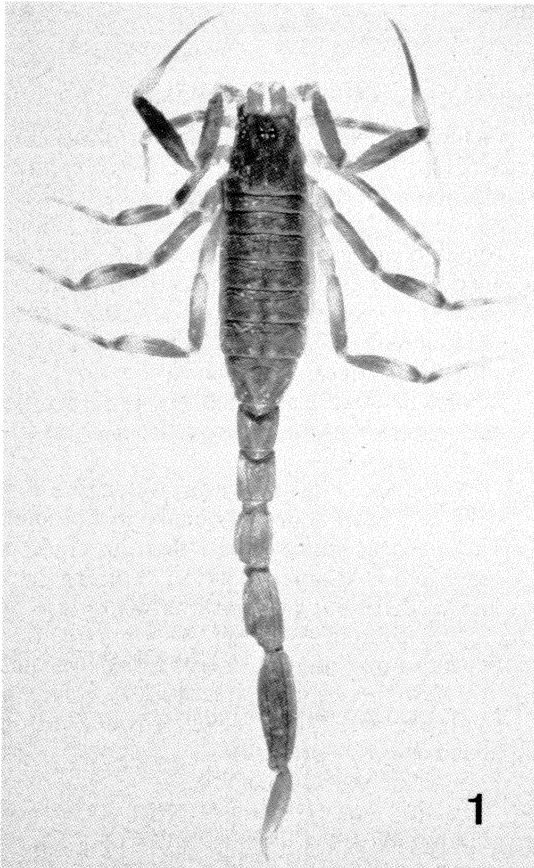
*A. gorgonae* Lourenço and Florez, 1989: Gorgona Island and Choco, Colombia.

*A. columbianus* Lourenço, 1991: Santa Marta, Colombia.

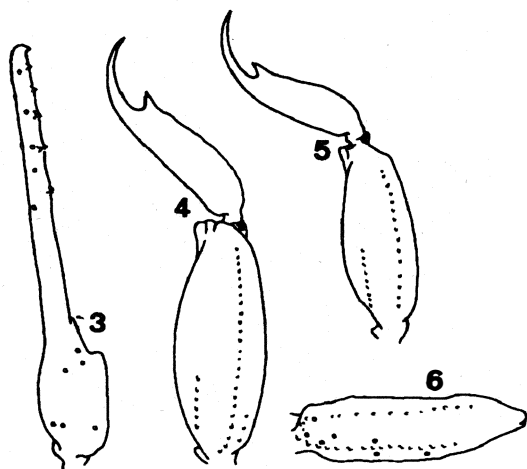
*A. platnicki* n. sp., Costa Rica and Panama.

*Ananteris platnicki* new species  
(Figs. 1-6, map 1-Fig. 7)

*Ananteris ashmolei*. : Lourenço, 1982, Bull. Mus. natl. Hist nat., Paris, (4) 4 A (1-2).



Figs. 1 and 2. *Ananteris platnicki*. Holotype male, dorsal and ventral aspects.



Figs. 3 to 6. *Ananteris platnicki*. 3, external aspect of right pedipalp chelae (holotype); 4, 5th metasomal segment and telson (holotype); 5, 5th metasomal segment and telson (allotype); 6 dorsal aspect of pedipalp femur (holotype).

*Ananteris ashmolei*: Francke and Stockwell, 1987, Spec. Publ. Mus. Texas Tech Univ., 25.

Type data. - Holotype male from Puntarenas, Provincia San vito (el. 1200 meters). Costa Rica, 27-30/VII/1969 (R. T. Schuh and J. Crane). Deposited in the American Museum of Natural History, New York.

Etymology: Patronym in honor of Norman I. Platnick of the American Museum of Natural History, New York.

#### Description, based on holotype male

Base color light to medium brown. Prosoma: carapace medium brown; eyes surrounded with black. Mesosoma and metasoma with distinct variegated fuscosity. Venter yellow brown. Pedipalps: base color medium brown; chelae with manus light yellow, fingers heavily infuscate. Legs yellowish with diffuse fuscous spots. Chelicerae yellow brown.

Carapace feebly granular; anterior margin without median concavity. Median ocular tubercule distinctly anterior of middle. Mesosoma: tergites feebly granular, almost smooth. Pectines without fulcra, with 20-19 teeth. Metasomal segments I-III with ten complete keels, segment IV with eight complete keels, and segment V with five complete keels; all keels moderately strong. Telson moderately granular; subaculeous tooth

strong; spinoid. Pedipalp tibia and chelae smooth acarinate. Dentate margin of fixed finger with seven rows of granules. Trichobotrial pattern A-Beta, orthobothriotaxic. Legs III and IV with distinctive tibial spurs.

Measurements (lengths in mm). Holotype male; carapace 2.6, metasomal segment V 3.8, pedipalp femur 2.6, tibia 3.2, chelae 3.8, movable finger 2.9. Allotype female: carapace 2.8, metasomal segment V 3.6, pedipalp femur 2.6, tibia 3.0, chelae 3.8, movable finger 2.8.

Variability. Pectinal tooth counts on males are 17-20; on females are 17-20.

Specimens examined.-- Costa Rica: Provincia San Vito, Puntarenas (elevation 1200 meters) 27-30 July 1969 (R.T. Schuh, J. Crane), 1 male holotype, 1 male paratype (AMNH). San Vito (8° - 50'S 82° - 55'W) May 1971 (D. Howell), 1 female allotype (AMNH). Panama: Canal zone, Barro Colorado Island, November-December 1939 (?), 1 male paratype (AMNH). November 1952, March 1953 (J. Telek), 1 female paratype (AMNH), December 1937, January 1938 (F. J. Ryan), 1 male paratype (AMNH), Province Cocle, N. Penoneme on road to Coclesito (litter), 25 July 1978 (K. Bub), 1 female paratype (AMNH). Province Panama, Cerro Galera 1983/84 (W. Nentwig) 1 female paratype (AMNH). Pipeline Rd. 5-10 km from Gamboa (forest), 21 August 1983 (W. Nentwig), 1 male, 2 females, 4 immatures paratypes (AMNH)

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#### RESUMEN

Se presenta una lista de especies y un mapa biogeográfico para los escorpiones del género *Ananteris*, Thorell. Las poblaciones de Costa Rica y Panamá antes consideradas *Ananteris ashmolei* Lourenço corresponden en realidad a una especie diferente aquí descrita como *Ananteris platnicki*. Esta difiere de *A. cussinii* y *A. columbianus* por ser más oscura. Se diferencia de *A. ashmolei* por su telson moderadamente granuloso (el de *ashmolei* tiene una marcada quilla ventral con algunos dientes "espinoides") y por su morfometría.

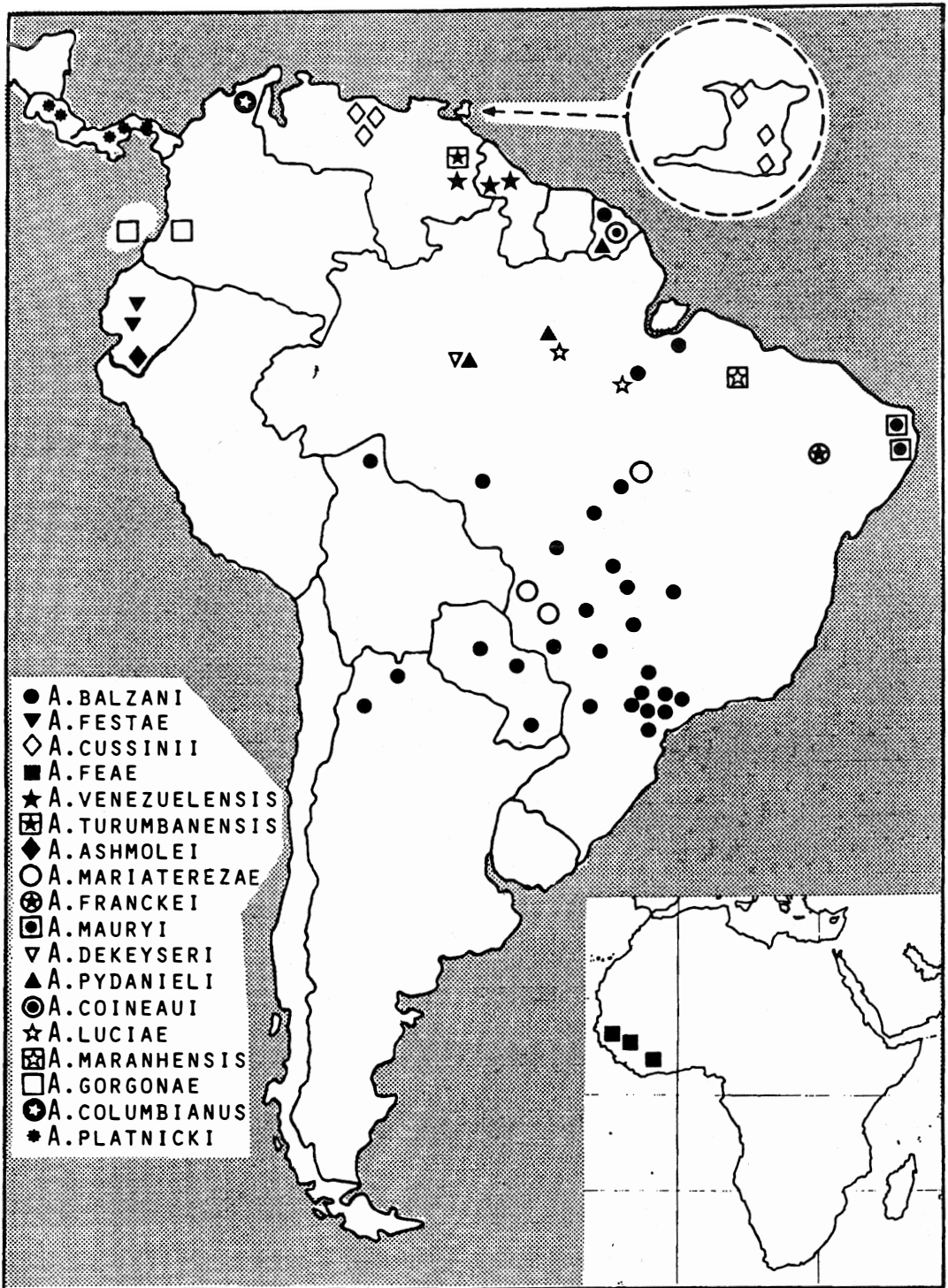


Fig. 7. Distribution of the known *Ananteris* species in the neotropical region and in Africa.

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