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Scorpions from the Mitaraka Massif in French Guiana: Description of one new genus and species (Scorpiones: Chactidae)



Scorpions du massif du Mitaraka en Guyane française : description d'un nouveau genre et d'une nouvelle espèce (Scorpiones : Chactidae)

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ABSTRACT

A new genus and species, *Spinochactas mitaraka* gen. n., sp. n. (Chactidae) are described from the Mitaraka Massif in French Guiana, a site located near the borders of French Guiana, Brazil, and Suriname. The description of the new genus and species brings further evidence of the biogeographic pattern of distribution presented by some elements of the family Chactidae endemic to the Tepuys or to the Inselberg formations of South America.

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R É S U M É

Un nouveau genre et une nouvelle espèce, *Spinochactas mitaraka* gen. n., sp. n. (Chactidae) sont décrites du massif du Mitaraka, situé dans la zone frontalière entre la Guyane française, le Brésil et le Surinam. La description du nouveau genre et de la nouvelle espèce apporte un nouvel appui au modèle de distribution géographique présenté par certains éléments de la famille des Chactidae endémiques des régions des Tepuys ou des Inselbergs en Amérique du Sud.

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1. Introduction

Until the early 1980s, the scorpion fauna of French Guiana did not particularly call the attention of experts, and the few publications devoted to this fauna were limited to isolated description [1] or to monographic

compilations [2,3]. The first framework dedicated to the scorpion fauna of French Guiana was the one by Lourenço [4] in which all the species known to that date were treated. Many subsequent publications followed on the scorpion fauna of French Guiana, including some dealing with soil species [5]; however, very few studies were dedicated to the French Guiana Massifs represented by Inselbergs (Fig. 1). One exception was the description of a new species of *Ananteris* from the Haut Ouarimapan in the

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Fig. 1. French Guiana with several Inselberg formations and in particular the site of the Mitaraka Massif.

extreme southwest of this department [6]. Even if the studies on the French Guiana scorpion fauna are far from being complete, this region appears as one of the 'hotspots' for biodiversity in South America. The degree of endemism for the scorpion species present in the region can overpass 70% [7,8].

Previously to the scorpions recently collected by the 'French Guyana Expedition, 2015' (currently under study), two other specimens were collected in the South Mitaraka Massif (Fig. 2), located on the borders of French Guiana, Brazil and Surinam, and entrusted to me by the late J.-M. Betsch. These rather small specimens were obtained with the use of extraction methods such as Berlesi and Winkler. One proved to be *Ananteris sabineae* Lourenço, 2001, whereas the recent study of the second specimen led to the description of a new genus and species belonging to the family Chactidae Pocock, 1893. The description of this new genus and species brings further evidence about the biogeographic patterns of distribution of some chactid groups that are confirmed as endemic elements present only in Massif formations of South America such as the Tepuys and Inselberg.

2. Short recall about the Tepuys and Inselberg formations

The Tepuys (or Tepuis) are tabletop mountains ('mesas') found only in the Guayana highlands of South America, which are located in the Guayana Lowland Floristic Province. They consist of rather isolated entities, and present few connected ranges. This geographical particularity makes the Tepuys outstanding endemic centres for both plants and animals. From a geological point of view, the Tepuys are composed of sheer blocks of Precambrian sandstone and quartzite rocks. These mesas are the remains of a large sandstone plateau that once covered the granite basement complex between what is today the northern border of the Amazon Basin and the Orinoco, between the Atlantic coast and the Rio Negro. Throughout the course of the Earth's geological history, the plateau has been eroded and the Tepuys formed from the remaining Inselbergs (monadnocks). The plateaux of these mesas are completely isolated from the low-lying forest, making them 'ecological islands'. However, the altitude engenders a different climate from that of lowland forest.

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