

NOTA CIENTÍFICA

First evidence of the occurrence of *Amblyomma calcaratum* Neumann, 1899 in Peru

Primera evidencia de la ocurrencia de *Amblyomma calcaratum* Neumann, 1899 en Perú

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Resumen

Se reporta la presencia del ácaro *Amblyomma calcaratum* colectado en un ejemplar de un mirmecofagido *Tamandua tetradactyla*, capturado en julio del 2000 en la localidad de Bagua Grande, Amazonas, Perú. Se mencionan las relaciones filogenéticas de esta especie con *A. nodosum* y de su importancia médica.

Palabras clave: *Amblyomma*, *Tamandua*, Amazonas, Vida silvestre, Perú.

Amblyomma calcaratum Neumann is a hard tick species (Acari: Ixodidae), which is known to occur in many Central and South American countries such as Venezuela, French Guiana, Ecuador, Brazil, Bolivia, Paraguay, Trinidad & Tobago, Colombia, Costa Rica, Panama and Belize (Jones et al. 1972). It has also been reported from Argentina (Boero and Delpietro 1971) and Suriname (Keirans 1985).

Adults of *A. calcaratum* primarily feed on anteaters (*Myrmecophaga* and *Tamandua* spp.), but have sporadically also been found on *Procyon cancrivorus* (Brazil), *Choloepus hoffmanni*, and *Mazama americana*.

Nymphal *A. calcaratum* were collected from Brazilian birds (Jones et al. 1972).

Although the main Edentata genera associated with this tick are known to inhabit the Peruvian Amazonian basin (Eisenberg and Redford 1999), the occurrence of *A. calcaratum* has never been recorded in Peru (da Fonseca 1960; Dale 1977; Dale and Venero 1977; Walter 1990). This species was also not included in the most recent list of known Peruvian *Amblyomma* taxa (Need et al, 1991).

In July 2000, 12 adult *Amblyomma* specimens (3 females and 9 males) were collected from a *Tamandua tetradactyla* in the Caserío Menor de Nunhan Jalca, Fundo Santa Rosa (Bagua Grande, Utcubamba, Amazonas, Peru). The ticks were identified as *Amblyomma calcaratum* according to taxonomic keys (Jones et al. 1972) and voucher specimens were deposited at the U. S. National Tick Collection (RML # 123271).

Furthermore, partial sequences of the mitochondrial 12SrRNA (Beati and Keirans 2001) and nuclear 28SrRNA genes (Klompén et al. 2000) were obtained from 6 specimens and compared to 48 homologous *Amblyomma* sequences from our database (Beati and

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Keirans, unpublished data). The six 28SrDNA nucleic acid sequences were identical (GenBank accession number: AY225324) and indistinguishable from the sequence of *A. nodosum* Neumann, 1899 (GenBank accession number: AY225323). However, the six 12SrDNA sequences (Genbank accession number: AY225322) differed from the *A. nodosum* sequence by 9.8% (Genbank accession number: AY225321). This finding is in agreement with the relative morphological relatedness of *A. calcaratum* and *A. nodosum*.

Little is known about the relationships between ticks and tick-borne diseases in South America. However, *Amblyomma* species are major vectors of pathogens of medical and veterinary interest throughout the world. Until our knowledge of associations between South American *Amblyomma* and pathogenic organisms improves, it is therefore important to gather precise information on the geographical distribution of each species.

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