

Amblyomma aureolatum (Acari: Ixodidae) parasitizing margay (*Leopardus wiedii*) in Rio Grande do Sul

Amblyomma aureolatum (Acari: Ixodidae) parasitando Gato-Maracajá (*Leopardus wiedii*) no Rio Grande do Sul

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Abstract

We report the finding of *Amblyomma aureolatum* (Acari: Ixodidae) parasitizing margay (*Leopardus wiedii*) in the locality of Gravataí (29° 47' 12.9" S and 50° 53' 44.1" W; 241 m alt.), State of Rio Grande do Sul, Southern Brazil. This is the first report of this species of Ixodidae on margay in Southern Brazil. This finding indicates an increased number of hosts for this tick species.

Keywords: *Amblyomma aureolatum*, ixodidae, margay, *Leopardus wiedii*, Rio Grande do Sul.

Resumo

Foi registrado o encontro de *Amblyomma aureolatum* (Acari: Ixodidae) em gato-maracajá (*Leopardus wiedii*), na localidade de Gravataí (29° 47' 12,9" S and 50° 53' 44,1" O; 241 m alt.), região metropolitana de Porto Alegre, Rio Grande do Sul. Esse é o primeiro registro desse ixodídeo parasitando essa espécie de felídeo e amplia a distribuição de hospedeiros no estado.

Palavras-chave: *Amblyomma aureolatum*, ixodídeo, gato-maracajá, *Leopardus wiedii*, Rio Grande do Sul.

Introduction

Amblyomma aureolatum tick belongs to ixodidae family (Pallas, 1772) and its distribution is limited to Neotropical region. Adult ticks are usually found parasitizing carnivores, namely dogs (EVANS et al., 2000; GUGLIELMONE et al., 2003). Aragão and Fonseca (1961b) re-described *A. aureolatum*, which together with *Amblyomma ovale* Koch, 1844, comprises the *ovale* complex, validating both taxa in substitution for the names *Amblyomma striatum* Koch, 1844 and *Amblyomma fozzium* Neumann, 1899. Even though they are synonymous, *A. aureolatum* and *A. striatum* were listed as valid by Barker and Murrell (2004), whereas Guglielmono et al. (2009) invalidated the name *A. striatum*.

In the records of *A. aureolatum* in wild felids in Brazil, Aragão and Fonseca (1961a) reported finding adults in *Leopardus wiedii* (margay), *Leopardus* sp., and *Puma concolor* (mountain lion), however the collection location of the ixodidae was not specified,

while Labruna et al. (2005) registered *A. aureolatum* in *Herpailurus jagouaroundi* (jaguarundi) in the States of Paraná and São Paulo. In tick samples from the north of Pará State, Aragão and Fonseca (1961a) found *A. ovale* in *P. concolor* and *Panthera onca* (jaguar). *A. ovale* was also found in *L. wiedii* in Macapá, Amapá. The presence of *A. aureolatum* in *P. concolor* has been described in three records of different locations in the State of São Paulo (LABRUNA et al., 2005). There are no records of *A. aureolatum* in *L. wiedii* in the State of Rio Grande do Sul.

The margay is a species extremely well adapted to arboreal life, and thus is considered a scansorial animal (FONSECA et al., 1996). Margays feed on small mammals, birds, reptiles, and some insects. They are nocturnal, and solitary. Males usually occupy a territory of approximately 10 km². Margay is widely distributed on Latin America, being found since Mexico coastal plain to Uruguay. In Rio Grande do Sul State (Brazil) margay can be found in almost entire territory, with the exception of “Campanha” region and littoral zone. *Leopardus wiedii* is currently considered to be an endangered species under risk of extinction in several regions of Brazil (INDRUSIAK; EIZIRIK, 2003).

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Figure 1. Margay (*Leopardus wiedii*) found on the RS 020 road, Gravataí, RS.



Figure 2. Specimen of *A. aureolatum* found attached on the external side of the ear of a margay, in Gravataí, RS.



Figure 3. Specimen of *A. aureolatum* (male) found in *Leopardus wiedii*. Note the distribution of dorsal punctuations, disposition of marks over the shield, and incomplete marginal groove.

Results and Discussion

A male specimen of *A. aureolatum* was collected in *L. wiedii*. The margay (Figures 1 and 2) was found dead, likely hit by a car, on RS 020 road, located in Gravataí municipality (29° 47' 12.9" S and 50° 53' 44.1" W, State of Rio Grande do Sul. The identification of the tick was based on the key provided by Aragão and Fonseca (1961a), which was updated by Onofrio et al. (2006).

The male of the species *A. aureolatum* has differential characters in its ventral region. It has two large spurs in its coxae I and the sternum finishes in a straight tip (differently than that of *A. ovale*, which is slightly curved), and a spur in its coxae IV. Its dorso has well-distributed punctuations and is of a light yellowish color with dark marks over the shield followed by a central mark that extends to the festoons and two longitudinal sides, besides the two sides with anterior origin of sinuous shape that extend from half of the shield and end at the posterior third. This species has an incomplete marginal groove (Figure 3). *A. aureolatum* has been found in periurban and rural areas and more frequently in domestic dogs.

The increase of reports about *A. aureolatum* parasitism in Southern Brazil deserves attention, since this tick may have impact on public health due to its ability to transmit tick-borne pathogens, namely bacteria of *Rickettsia* genus (PINTER et al., 2004). It is important to note that this specimen of *A. aureolatum* was found parasitizing a margay in a very anthropized rural area, characterized by small farms with a high canine and feline population.

This study is the first report of this species in *L. wiedii* in the Rio Grande do Sul State.

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