

**FIRST RECORD OF *Amblyomma aureolatum* (PALLAS, 1772)
(ACARI: IXODIDAE) PARASITIZING *Alouatta guariba* (HUMBOLDT, 1812)
(PRIMATA: ATELIDAE) IN SOUTHERN BRAZIL***

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ABSTRACT:- MARTINS, J.R.; SALOMÃO, E.L.; DOYLE, R.L.; TEIXEIRA, M.C.; ONOFRIO, V.C.; BARROS-BATTESTI, D.M. **First record of *Amblyomma aureolatum* (Pallas, 1772) (Acari: Ixodidae) parasitizing *Alouatta guariba* (Humboldt) (Primata: Atelidae) in southern Brazil.** [Primeiro registro de *Amblyomma aureolatum* (Pallas, 1772) (Acari: Ixodidae) parasitando *Alouatta guariba* (Humboldt) (Primata: Atelidae) no Sul do Brasil.] *Revista Brasileira de Parasitologia Veterinária* v. 15, n. 4, p. 203-205, 2006. Instituto de Pesquisas Veterinárias Desidério Finamor, Estrada do Conde, 6000, Eldorado do Sul, RS 92990-000, Brazil. E-mail: joarsm@terra.com.br

A female of *Amblyomma aureolatum* was found on the howler monkey *Alouatta guariba*, in Cachoeira do Sul, Rio Grande do Sul, Southern Brazil. This is the first record of this tick species parasitizing this primate species in Brazil.

KEY WORDS: *Amblyomma aureolatum*, *Alouatta guariba*, Southern Brazil.

RESUMO

Uma fêmea de *Amblyomma aureolatum* foi encontrada parasitando uma espécie de bugio, *Alouatta guariba*, em Cachoeira do Sul, Rio Grande do Sul, Brasil. Este é o primeiro registro de parasitismo de *A. aureolatum* nesta espécie de primata no Brasil.

PALAVRAS-CHAVE: *Amblyomma aureolatum*, *Alouatta guariba*, Sul do Brasil.

The species *Amblyomma aureolatum* (Pallas, 1772) is a common tick from rural and periurban areas, and Carnivora are described as the main hosts for adult stages. Together with

Amblyomma ovale Koch, 1844 formed the *ovale* complex named by Aragão and Fonseca (1961) who redescribed male and female of both species. These authors supported the name *A. aureolatum* instead *A. striatum* Koch, 1844 despite some authors still have used this name many years after this study. Distribution of this tick species is restricted to the Neotropical region from Uruguay to Surinam, including most Brazilian states (GUGLIELMONE et al., 2003).

Howler monkeys of the genus *Alouatta* (Atelidae) presents a broad geographic distribution inhabiting neotropical forested areas from Mexico to Argentina and south of Brazil (NEVILLE et al., 1988) and are known for their ability to survive in intact or disturbed anthropogenic ecosystems such as forest fragments as small as few hectares (BICCA-MARQUES, 1994; CHIARELLO; GALETTI, 1994). However, presently *A. guariba* is considered in extinction by the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and it is of hard adaptation on captivity where shows difficulties in food intake and low reproductive behavior (CROCKETT, 1998).

In the state of Rio Grande do Sul, southern Brazil, two of the ten of Atelidae known members were registered (BICCA-MARQUES, 2003): *Alouatta caraya* (Humboldt, 1812) and *A. guariba* (Humboldt, 1812). Both of them are locally known as

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“bugio” and share social habits with others members of family basic group.

It is a general consensus that the behavior of scratching and constant examining body parts of each other in monkey’s families prevents infestations by ectoparasites.

The parasitized monkey was found isolated in a rural area in the municipality of Cachoeira do Sul, RS (30° 02’ 21’’ S; 52° 53’ 38’’ W; 72 m, average annual of temperature =18.8°C, annual rainfall =1438). A huge wound noticed in his left hand probably prevented himself from cleaning and scratching what might explain the successful infestation by this adult tick whose biting usually cause some annoyance. *Amblyomma aureolatum* female was removed during a visual inspection just before the procedures for the surgery he was submitted

and it was identified by one of the authors (BARROS-BATESTI, 2006) as *A. aureolatum* (Fig 1a to 1e). The absence of colour on the scutum (Fig. 1a) is rare but not uncommon in adults which molt from nymphs that not ingest enough quantity of blood. These adults are usually smaller and slightly ornamented after molt, as has been observed with some ticks under laboratory conditions under laboratory conditions.

In some recent reviews on tick hosts and distribution for the state of Rio Grande do Sul, southern Brazil (EVANS et al., 2000) and even for neotropic region (BARROS-BATTESTI et al., 2006) there are no mention on ticks parasitizing this monkey species (*A. guariba*). The exception is *Alouatta seniculus*

BARROS-BATESTI, D.M., 2006. Personal communication.

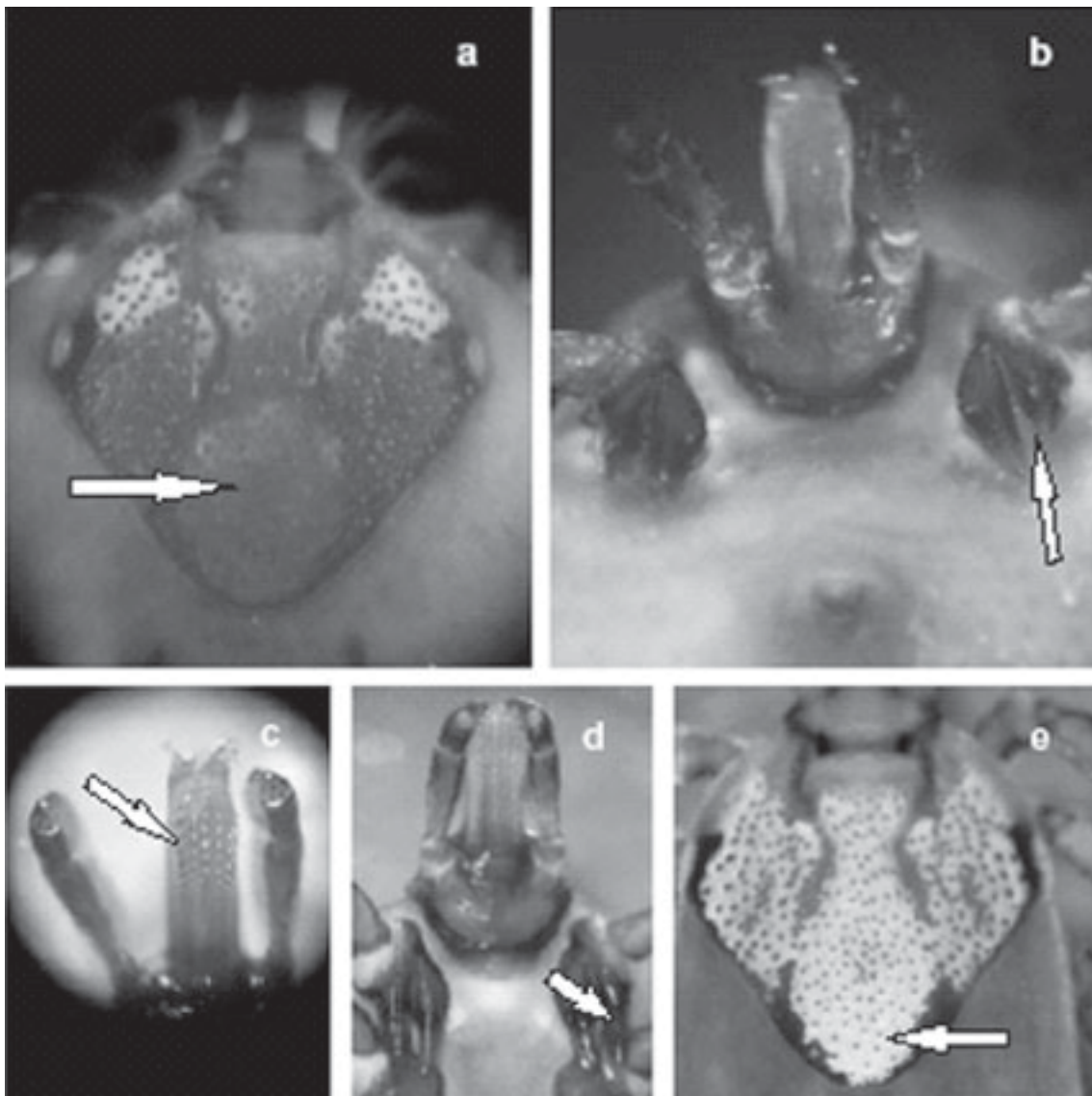


Fig. 1. *Amblyomma aureolatum* female. **a.** Detail of the scutum where a pale ornamentation can be observed on lateral and on the back part which generally is white clear and with several punctuations. **b.** The same specimen in ventral view, note the broken external spurs on coxae I. **c.** Hipostome from the same specimen with dental formula 3x3. **d.** female from laboratory colony, note the normal spurs on coxae I. **e.** The same specimen in dorsal view, note the normal ornated scutum. Original magnifications: a (40x); b (40x); c (80x); d (32x); e (32x).

(Linnaeus, 1766) in Venezuela that has been found parasitized by an adult and larvae of *A. cajennense* and *A. ovale*, and a female of *A. ovale* found in *Cepus paella* (Linnaeus, 1758) in the state of Paraná, also south of Brazil (BARROS; BAGGIO, 1992). This finding seems to be the first report of *A. aureolatum* on the red hoare monkey for the neotropics area. One concern on this tick species is that *A. aureolatum* also has been reported as involved in the epidemiology of rickettsial spotted fever in Brazil (PINTER, 2003).

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