New records for *Amblyomma sculptum* (Ixodidae) on non-passerine birds in Brazil

Novos registros de *Amblyomma sculptum* (Ixodidae) em aves não-passeriformes no Brasil

Hermes Ribeiro Luz*; João Luiz Horacio Faccini1; Gabriel Alves Landulfo1; Sócrates Fraga Costa Neto2; Kátia Maria Famadas1

1 Departamento de Parasitologia Animal, Universidade Federal Rural do Rio de Janeiro – UFRRJ, Seropédica, RJ, Brasil
2 Programa de Pós-graduação em Biodiversidade e Saúde, Instituto Oswaldo Cruz, Rio de Janeiro, RJ, Brasil

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Abstract

The aim of this paper was to provide new records of *Amblyomma sculptum* on two species of terricolous birds in two areas of the Cerrado (savannah-like) bioma: two specimens of *Cariama cristata* were captured in the state of Goiás and one specimen of *Crax fasciolata* was captured in the state of Minas Gerais. One of the *C. cristata* was parasitized by 15 larvae, six nymphs, one male and two females whereas the *C. fasciolata* was parasitized by seven larvae and eight nymphs. This paper presents a new locality for occurrence of parasitism *A. sculptum* in *C. cristata* and a new host for *C. fasciolata.*

Keywords: *Amblyomma sculptum*, Ixodidae, Terricolous, Cerrado, Brazil.

Resumo

O objetivo deste trabalho foi apresentar novos registros de *Amblyomma sculptum* em duas espécies de aves terrícolas em duas áreas do bioma Cerrado: dois espécimes de *Cariama cristata* foram capturados no Estado de Goiás e um exemplar de *Crax fasciolata* foi capturado no Estado de Minas Gerais. Um dos exemplares de *C. fasciolata* estava parasitado por 15 larvas, seis ninfas, um macho e duas fêmeas, enquanto *C. fasciolata* estava parasitada por sete larvas e oito ninfas. Neste registro são apresentados nova localidade para ocorrência do parasitismo *A. sculptum* em *C. cristata* e novo hospedeiro para *C. fasciolata.*

Palavras-chave: *Amblyomma sculptum*, Ixodidae, Terrícolas, Cerrado, Brasil.
according to the recommendations of the Brazilian Committee of Ornithological Records (CBRO, 2014). Ticks were identified according to morphological criteria: females (NAVA et al., 2014), larvae (FAMADAS et al., 1997; BARBIERI et al., 2007) nymphs (MARTINS et al., 2010) and males (ONOFRIO et al., 2006). All larvae, nymphs and males identified as *A. cajennense* were considered as *A. sculptum* for reasons of their geographic origin. Specifically, we used the U-shaped genital aperture of both females to identify them as *A. sculptum* (NAVA et al., 2014). In addition, we supposedly consider the remaining specimens as *A. sculptum* based on their distribution (NAVA et al., 2014).

Mounted larvae used to porotaxy in this study were deposited in the Butantan Institute collection, São Paulo, Brazil (IBSP) under the access numbers (IBSP12101) and (IBSP12102).

In total, we collected 39 ticks: 22 larvae, 14 nymphs, one male and two females from the neck (7 larvae and nymphs 8), head (15 larvae, nymphs 6) and mentum (3 adults) of the birds. Only one of the two specimens of *C. cristata* was parasitized by 15 larvae, six nymphs, one male and two females whereas the *C. fasciolata* was parasitized by seven larvae and eight nymphs. This paper provides details of a new host and locality records of *A. sculptum* in *C. fasciolata* and new host for larvae and adults (1 male, 2 females) and locality records in *C. cristata*.

The tick *A. sculptum* was resurrected recently from within the *A. cajennense* complex which is composed of six species, distributed from the southern USA to northern Argentina. To date, two species have been found in Brazil: *A. cajennense* *s.s.*, primarily from the Amazon region and *A. sculptum*, mainly from the Southeast and Central West regions (NAVA et al., 2014), although their exact range still needs to be determined.

Based on our current knowledge it appears that *A. sculptum* is a very well adapted tick in the Cerrado biome and in anthropized area of Atlantic Forest, having as preferential hosts capivaras and horses (SZABÓ et al., 2009; VERONEZ et al., 2010; BEATI et al., 2013; NAVA et al., 2014). Prior to the current report, parasitism by ticks in *C. cristata* has been related by Labruna et al. (2007) (one nymph of *A. cajennense* *s.l.*) from the State of São Paulo. Regarding the hosts, both *C. cristata* and *C. fasciolata* are terricolous birds which are characterized by seeking food and shelter and, in most cases, nesting directly on the ground (FERREIRA et al., 2010). The first species is widely distributed in Brazil, but rarely recorded from Amazon, whereas *C. fasciolata* has a concentrated distribution in the Central-West Region of the country, until the West of São Paulo, Paraná and Minas Gerais states (SICK, 1997). These birds have great importance as dispersers of seeds throughout the Brazilian Cerrado (SICK, 1997; DIAS et al., 2010), a behavior that might help with dispersion of *A. sculptum* through the Cerrado biome.

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References


