

Ticks on free-living wild mammals in Emas National Park, Goiás State, central Brazil

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Abstract

This paper reports the occurrence of ticks on different species of free-ranging wild mammals in Emas National Park, Goiás State, Brazil. Between November 1999 and July 2008, ticks were collected from free-ranging wild mammals during 330 capture events. The tick species *Amblyomma cajennense* (Fabricius, 1787), *Amblyomma coelebs* Neumann, 1899, *Amblyomma naponense* (Packard, 1869), *Amblyomma ovale* Koch, 1844, *Amblyomma parvum* Aragão, 1908, *Amblyomma tigrinum* Koch, 1844, *Amblyomma triste* Koch, 1844, and *Rhipicephalus microplus* (Canestrini, 1888) were identified on hosts of the order Carnivora. Among other host orders (Xenarthra, Artiodactyla, Perissodactyla, Rodentia, Didelphimorphia, Primates), specimens of *A. cajennense*, *A. coelebs*, *A. ovale*, *A. triste*, *Amblyomma pseudoconcolor* Aragão, 1908, *A. naponense* and *Amblyomma nodosum* Neumann, 1899 were identified. Although most of the tick-host associations found in this study have been previously reported, this is the first report of adults of *A. tigrinum* parasitizing a pampas cat, *Leopardus colocolo* (Molina, 1782), nymphs of *Amblyomma parvum* and *Amblyomma ovale* on *Cerdocyon thous* (Linnaeus, 1766), nymphs of *Amblyomma naponense* on *C. thous* and *Tayassu tajacu* (Linnaeus, 1758), nymphs of *Amblyomma triste* on *C. thous* and *L. colocolo*, nymphs of *Amblyomma coelebs* on *Puma yagouaroundi* (Geoffroy, 1803) and *Dasyprocta azarae* Lichtenstein, 1823, and nymphs of *Amblyomma cajennense* on *L. colocolo*, *Conepatus semistriatus* (Boddaert, 1785), *Galictis cuja* (Molina, 1782) and *Nasua nasua* (Linnaeus, 1766). This study is therefore a significant contribution to our knowledge of the ectoparasites associated with free-ranging Brazilian wild mammals.

Key words: Ixodidae, *Amblyomma*, *Rhipicephalus*, wild mammals, Cerrado, Emas National Park, Brazil

Introduction

Ticks are cosmopolitan ectoparasitic arthropods belonging to the class Arachnida that parasitize all classes of terrestrial vertebrates: amphibians, reptiles, birds and mammals (Nava *et al.* 2009). Because of this, ticks are the most important vectors of infectious diseases of animals and are second only to mosquitoes as vectors of human diseases, transmitting viruses, bacteria, protozoa and helminths (Nava *et al.* 2009). Tick species that parasitize domestic animals have been well studied, while those parasitizing wildlife are still poorly known, especially with regard to their taxonomy, biology, ecology, geographical distribution, natural hosts, and capacity to transmit biological agents (Barros-Battesti *et al.* 2006).

The Emas National Park (ENP) covers 131,800 hectares in the southwestern part of the state of Goiás. Due to its size, integrity of natural habitats, faunal richness and the presence of rare and