

Ticks of the genus *Amblyomma* (Acari: Ixodidae) on wild birds in the Brazilian Amazon

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Abstract

The Amazon biome harbors the richest avifauna in the world. However, in the Brazilian Amazon only a single previous study has systematically evaluated wild birds for ticks. During 2012, wild birds were captured in two areas of the Brazilian Amazon forest, one located in the State of Amazonas, and another in the State of Pará. Overall, 581 wild birds representing 118 species were captured, but only 18 individuals (3.1% prevalence) were infested by ticks, comprising immature stages of *Amblyomma calcaratum* Neumann, 1899, *Amblyomma geayi* Neumann, 1899, *Amblyomma humerale* Koch, 1844, and *Amblyomma longirostre* (Koch, 1844). The only previous study of birds in the Brazilian Amazon reported 40.2% tick prevalence. Such contrasting prevalence values may stem from seasonal differences or differences in forest disturbance at the two sites.

Key words: Ticks, genus *Amblyomma*, wild birds, Brazilian Amazon

Introduction

The Amazon is the largest and most diverse of the world's tropical forests, covering more than 6.6 million km² in nine countries of South America (Mittermeier *et al.* 2003). Approximately two-thirds of the bird species reported from Brazil can be found in the Amazon (Silveira 2013). This wilderness harbors the richest avifauna in the world: 1,294 known species, of which 263 are endemic to this biome (Mittermeier *et al.* 2003). Not surprisingly, Brazil has the world's second most diverse avifauna, with 1,840 species (Silveira 2013). Despite such avian diversity, only 3 tick species are known in Brazil to use birds as primary hosts for all parasitic stages: *Argas miniatus* Koch, 1844, a parasite of domestic fowl, and *Ixodes auritulus* Neumann, 1904 and *Ixodes paranaensis* Barros-Battesti, Arzua, Pichorim & Keirans, 2003, parasites of wild birds (Arzua *et al.* 1994, Arzua & Barros-Battesti 1999, Barros-Battesti *et al.* 2003, Dantas-Torres *et al.* 2009). Curiously, accidental infestations by *Rhipicephalus sanguineus* (Latreille, 1806) have been reported on native and non-native birds in Brazil (Diogo *et al.* 2003, Szabó *et al.* 2008, Luz *et al.* 2012). For the most part, however, studies have reported the occurrence of immature stages (larvae and nymphs) of *Amblyomma* spp. on wild birds that were captured in different areas of the Brazilian Cerrado and Atlantic Forest biomes (Marini *et al.* 1996, Neves *et al.* 2000, Arzua *et al.* 2003, Storni *et al.* 2005, Labruna *et al.* 2007, Ogrzewalska *et al.* 2008, 2009, 2011b, 2012, Tolesano-Pascoli *et al.* 2010, Luz *et al.* 2012, Santolin *et al.* 2012, Pacheco *et al.* 2012, Amaral *et al.* 2013, Pascoal *et al.* 2013, Sanches *et al.* 2013, Torga *et al.* 2013). Within the Amazon biome, only a single Brazilian study, in the State of Pará, has systematically evaluated wild birds for ticks (Ogrzewalska *et al.* 2010). The goal of our