



### **P157 - Immature stages of ticks in terrestrial birds of two protected áreas localized in islands of Southeastern Brazilian Atlantic Forest**

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Several tick species, especially immature stages of the genera *Argas*, *Ornithodoros*, *Ixodes*, *Amblyomma* and *Haemaphysalis* are found parasitizing birds in South America. The present study aimed to add information of tick infestations in terrestrial birds from two protected areas located in islands of southeastern Brazilian Atlantic forest: Carijós Ecological Station and Arvoredo Biological Reserve, Santa Catarina. Birds were captured with mist nets from Sept 2015 to Apr 2018. The skin and the feathers of each bird were inspected for the presence of ticks. The visualized ticks were removed manually or with forceps, stored in 70% ethanol. Nymphal ticks were identified to species while unengorged larvae were identified to genus level due to absence of a specific key. Tick prevalence (infested birds/examined birds × 100) and infestation intensity (ticks/infested birds within each bird species) were calculated. A total of 615 individual birds from 48 species, 20 families and 8 orders were examined (86.2% of sampled individuals belonged to Passeriformes order); 22 (3.6%) were infested by 60 immature forms of ticks (5 nymphs and 55 larvae). The infestation intensity (mean  $2.6 \pm 2.7$ ) varied from 1.0 to 6.5 ticks/host (highest for *Elaenia obscura*). Two tick identified species were: *Amblyomma longirostre* (4 nymphs) in *E. obscura* (n=2) and *Dysithamnus mentalis* (n=1); and *A. nodosum* (1 nymph) in *Tachyphonus coronatus* (n=1), while all larvae were identified as *Amblyomma* sp. (in *Chiroxiphia caudata*, *E. obscura*, *Attila rufus*, *Troglodytes musculus*, *Geothlypis aequinoctialis*, *T. coronatus* and *Coereba flaveola*). Moreover, 1 nymph of *A. longirostre* was found crawling on the clothes of a field worker. The prevalence of the tick infestation registered here was lower than previously reported in other parts of the Atlantic forest, explained by the complex spatial and temporal ectoparasite dynamics within their hosts. All larvae and nymphs collected in the present study belonged to the genus *Amblyomma*, which is the most common tick genus in the Neotropical region and Brazil (32 species registered in Brazil), especially in Passerine birds. *A. longirostre* is widely distributed and most prevalent in Atlantic forest. Adult stage feeds primarily on porcupines while immature forms are commonly infesting birds, mainly in the Passerines. For *Elaenia*, it was reported in *E. flavogaster*, *E. parvirostris*, *E. mesoleuca*, *E. cristata*; we extend that list to *E. obscura*. *A. nodosum* was previously demonstrated as the second mostly frequent tick infesting birds in the Atlantic forest. The adults of this species are commonly found on the anteaters while immature forms feed primarily on birds, mainly in the order Passeriformes. It was previously reported in *T. phoenicius*, *T. rufus* and *T. cristatus*. This tick species was previously detected in higher prevalence on birds in smaller forest fragments of Atlantic forest, the Carijós Ecological Station case. Birds play important role as carriers of *Rickettsia* infected ticks and can distribute them within and between continents. *Turdus amaurochalinus* is a migratory bird that was infested by *Amblyomma*. *A. longirostre* and *A. nodosum* were reported to be infected by *Rickettsia amblyommatis* and *R. parkeri-like*, respectively, which are implicated to produce Rocky Mountain spotted fever. Then, it is important to inventory the different rickettsial genotypes circulating in this regions, which will be the next step of this study. **Palavras-Chave:** Amblyomma, mist nets, Passeriformes, Rickettsia; **Financiadores:** The CNPq has supported the PIBIC/ICMBio scholarship of Ariane Ferreira.