

Molecular Investigation of *Rickettsia* spp. in Ticks from the Campus of
Universidade Federal de Viçosa, Viçosa/MG, Brasil.

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Brazilian spotted fever (BSF) caused by *Rickettsia rickettsii* is the most prevalent rickettsial disease described in Brazil. The aim of this work was the detection of rickettsial organisms in ticks collected in Viçosa/MG where one confirmed case of BSF was reported in 2002. A total of 1845 unfed, free-living ticks were collected from vegetation by using the drag sampling method in areas inhabited by capybaras in the Campus of Federal University of Vicosa, including 1685 larvae and 157 nymphs of *Amblyomma* spp., and three adults of *Amblyomma cajennense*. These ectoparasites were identified, pooled in lots according to the origin and stage of development and tested by nested-PCR, using primers that amplify a fragment of the 17-kD genus-specific gene. A pool containing 40 larvae of *Amblyomma* spp. was positive for *Rickettsia*. The minimum infection rate was 0,05% (at least one tick infected among 1845). Considering the hypothesis that those larvae collected in this study were of *A. cajennense*, the detection of rickettsial organisms shows the importance of this tick in the ecology of rickettsiosis in the area studied, since all stages of *A. cajennense* can feed on humans. The presence of host, vector and microorganism suggests the possibility of occurrence of new cases of BSF in the study area. However, it is necessary to confirm by sequencing if the specie encountered belongs to the BSF group, which would point to the development of an epidemiological surveillance system.

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