

TITLE: Detection of *Mycoplasma synoviae* and *Mycoplasma gallisepticum* in captive psittacines in Vitória da Conquista, Bahia

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ABSTRACT:

Brazil holds the biggest diversity of birds from the family *Psittacoidea*. Illegal wildlife trade (IWT) is a big business exceeded only by illegal drug trade. The illegal activity of wildlife trade causes negative impact on the Brazilian fauna because it may lead to extinction of endangered species, thereby reducing significantly the biodiversity. Wild birds are potential reservoir to pathogenic microorganisms that may cause potential zoonoses. Among these microorganisms, *Mycoplasma gallisepticum* and *M. synoviae* stand out because of their relevance in birds and their clinical characteristics. MG and MS are microorganisms which belong to the group *Mollicutes*. These microorganisms can infect many animals, including poultry and wild birds. Due to this, the aim of this study was to evaluate the presence of MG and MS in 35 psittacines from a screening Center for wild animals called “Centro de Triagem de Animais Silvestres” (CETAS), localized in the city of Vitória da Conquista, Bahia, Brazil. Samples were obtained by cloacal swab. The DNA was extracted from each sample, and posteriorly, they were screened by polymerase chain reaction (PCR). The *Mycoplasma spp* DNA were detected in 45,7% (16/35) of animals studied. Among the positive samples, 6,25% (1/ 16) were positive to MS and none were positive to MG. All positive samples to *Mycoplasma spp*. were further analyzed by DNA sequencing. After sequencing and a ribosomal RNA 16S similarity study, two samples were found to be close related to *Mycoplasma synoviae*. This study is the first report to identify *M. synoviae* in psittacines in Brazil and the first study of this kind in captive animals in the state of Bahia. Therefore, the results here shown are fundamental to better understand this infection in psittacines, what may contribute to new approaches to improve the health of these animals.

Keywords: CETAS, mycoplasma, psittacines, sequencing.