

RESUMO - PROTOZOOLOGIA E PATÓGENOS TRANSMITIDOS POR
VETORES

**TRYPANOSOMA SPP. INFECTION IN WHITE-LIPPED PECCARIES
(TAYASSU PECARI) FROM CERRADO BIOME, MIDWESTERN BRAZIL**

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Trypanosomiasis are diseases caused by protozoa of the genus *Trypanosoma* (family Trypanosomatidae), with high relevance to animal and human health due to their broad ecological plasticity and ability to infect multiple hosts. In Brazil,

the most relevant species include *Trypanosoma cruzi*, the etiological agent of Chagas disease, as well as *Trypanosoma evansi* and *Trypanosoma vivax*, which infect wild and domestic animals. From an epidemiological perspective, these infections are strongly associated with environments where wildlife, domestic animals, and humans interact, favoring the maintenance of enzootic cycles and spillover events. Previous studies have reported the presence of *Trypanosoma* spp. in cardiac tissues of wild boars (*Sus scrofa*), as well as molecular and serological detection in tayassuids (*Dicotyles tajacu* and *Tayassu pecari*), suggesting that these mammals may act as potential reservoir hosts. In this context, this study aimed to evaluate the prevalence of trypanosomatids in a natural population of *T. pecari* from natural and rural areas surrounding Emas National Park, using the 5.8S rRNA region (~83 bp) of the genus *Trypanosoma* as the molecular target. Sampling was performed at two time points: in 2025, involving animals introduced into captivity until 2022, and in 2026, involving animals introduced between 2025 and 2026. Animal capture and handling were conducted in partnership with the Tropical Sustainability Institute (TSI) as part of a population management program for *T. pecari*. Whole blood samples were collected in EDTA tubes and stored at -20°C until processing. DNA extraction was performed using an adapted manual magnetic bead protocol, and molecular analyses were carried out by qPCR using a hydrolysis probe system. Results were analyzed for confidence intervals and associations with sex, age group (young or adult), and animal origin (captive-born or wild-born). Additionally, blood smears were prepared from one qPCR-positive animal. Of the 608 samples analyzed (427 from animals introduced until 2022 and 181 from animals introduced between 2025 and 2026), 19 tested positive for *Trypanosoma* spp., corresponding to a prevalence of 3.1% (95% CI: 1.9–4.8%). No association was observed between positivity, sex, or age. However, positivity was detected exclusively in animals introduced between 2025 and 2026 that were not born in captivity. The presence of *Trypanosoma* spp. was also morphologically confirmed in the blood smear. These findings suggest that *T. pecari* may be infected to *Trypanosoma* agents in natural areas and may potentially contribute to the maintenance of enzootic cycles.

Palavras-chave: qpcr; 58s rna; molecular surveillance; pathogen detection; hemoparasites.