

OCCURRENCE OF *Neorickettsia risticii* IN A TROPICAL-EQUATORIAL CLIMATE REGION,
BAIXADA MARANHENSE IN MARANHÃO - BRAZIL

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Neorickettsia risticii is the causative agent of Potomac Fever, an acute disease characterized by fever and colonic lesions in horses. The bacterium's life cycle involves the trematode *Pleurolophocercus*, which parasitizes *Heliobia* snails commonly found in marshy regions with tropical Atlantic or subtropical climates. The Baixada Maranhense region consists of low, flood-prone plains and has a tropical-equatorial climate with distinct rainy and dry seasons and higher average temperatures. Although *Heliobia* snails, the known intermediate host of *N. risticii*, have not been recorded in this region, the presence of other snail species suggests the possibility of alternative hosts. This study aimed to investigate the occurrence of *N. risticii* in equines from Baixada Maranhense, Maranhão. Blood samples were collected from 184 horses across 21 municipalities in Baixada Maranhense, along with two additional locations with similar bioclimatic conditions. Blood smears were prepared for direct parasite detection, stained with Panótico Rápido, and examined under a light microscope using a 100x objective lens. For molecular detection, DNA was extracted using the Wizard® Genomic DNA Purification Kit (PROMEGA®), followed by nested PCR targeting the 16S ribosomal RNA region of *N. risticii*, according to the protocol established by Barlough (1998). One sample exhibited cytoplasmic inclusions in monocytes consistent with *N. risticii*, while molecular testing detected the pathogen in seven samples. This study provides the first evidence of *N. risticii* circulation in horses from Baixada Maranhense, emphasizing the need for further research to elucidate its transmission pathways in equatorial tropical environments.

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