PIONEERING DETECTION OF *Toxoplasma gondii* IN GREEN TURTLES (*Chelonia mydas*): IMPLICATIONS FOR MARINE ECOEPIDEMIOLOGY

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Toxoplasma gondii is a zoonotic protozoan parasite known to cause several implications for human and animal health. The surface runoff and transport of infective structures from the terrestrial environment to the sea, as well as the detection of this parasite in marine invertebrates, such as shellfish, have already been observed. However, the knowledge of its ecoepidemiology in marine environments and its possible hosts are incipient or poorly explored in many areas worldwide. The main goal of this study was to investigate the prevalence of *T. gondii* infection in green turtles (*Chelonia mydas*) found along the northern coast of Santa Catarina State, Brazil, as an additional strategy to track environmental contamination by this protozoan. Additionally, the study examined pathological changes and the presence of other pathogens in turtles. The turtles analyzed were found dead or weakened along different beaches of the study area. A variety of tissues from eight green turtles were examined. DNA amplification was performed by nested-PCR using *B1* gene as molecular marker for *T. gondii* detection and histological sections were prepared and stained using the hematoxylin-eosin (HE) method. *T. gondii* DNA was detected in the brain and liver of two individuals (25%). The histopathological examinations revealed alterations in animals' respiratory, hepatic, and nervous systems and the presence of Trematode eggs from the Spirorchiidae family. This study provides the first evidence of marine turtles infection by *T. gondii*, contributing to the growing knowledge of its ecoepidemiology, highlighting the importance of considering marine turtles as potential hosts for the parasite. This expanded perspective enhances our understanding of the dynamics of toxoplasmosis in nature. It has significant implications for developing effective conservation and management strategies for this vulnerable species, which was classified by the IUCN Red List of Threatened Species in 2004 as Endangered.

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