

RESUMO - PROTOZOOLOGIA E PATÓGENOS TRANSMITIDOS POR
VETORES

**TOXOPLASMA GONDII IN COMMERCIALLY AVAILABLE OYSTERS FROM
THE METROPOLITAN REGION OF FLORIANÓPOLIS, SANTA CATARINA,
BRAZIL**

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Toxoplasma gondii is an obligate intracellular protozoan of zoonotic importance, capable of infecting a wide range of animal species. Oysters may become environmentally contaminated by oocysts shed by definitive hosts, which reach

aquatic environments. In this context, these mollusks act as bioaccumulators of the parasite along the trophic chain and may serve as indicators of environmental contamination, in addition to representing a potential risk to public health when consumed raw due to the possible transmission of infective forms of the agent. The metropolitan region of Florianópolis, Brazil, accounts for most of the oyster production in the state of Santa Catarina, which is responsible for more than 90% of the national production. Thus, this study aimed to detect the presence of *T. gondii* in oysters commercially acquired in three municipalities of this region: Florianópolis, São José, and Palhoça. For detection, tissues (gastrointestinal tract and gills) from 260 oysters were dissected and processed into pools containing five individuals. A total of 100 oysters from Florianópolis and Palhoça (n = 20 pools/tissue/municipality) and 60 oysters from São José (n = 16 pools/tissue/municipality) were analyzed. Tissue pools were subjected to genomic DNA extraction using the DNeasy Blood & Tissue kit (Qiagen), followed by nested PCR targeting a 155 bp internal fragment of the B1 gene for *T. gondii* detection, including positive and negative controls. Among the 56 pools analyzed, only one gastrointestinal pool sample from oysters collected in Palhoça tested positive, corresponding to a positivity rate of 0.56% (1/56). This finding may reflect low environmental contamination and/or heterogeneous distribution of oocysts in aquatic environments. Future directions include increasing the sample size and attempting genotyping of the positive sample using PCR-RFLP, aiming to contribute to the understanding of the molecular epidemiology of this parasite in oysters, which are important sentinel organisms for protozoa detection.

Palavras-chave: food safety; epidemiology; one health; zoonosis; marine environment.