TITLE: MICROBIOLOGICAL QUALITY OF OYSTERS (*Crassostrea rhizophorae*) FROM TAPEROÁ, SOUTHERN BAHIA - BRAZIL

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ABSTRACT

Worldwide, food safety is considered a relevant issue in Public Health due to outbreaks of Foodborne Diseases. Due to the social and economic value of oysters for riverside communities, it is essential to control microbiological quality to ensure safe human consumption. In addition, oysters act as bioindicators for environmental contamination since they are filter feeders. The objective of this work was to evaluate the microbiological quality of the oyster *Crassostrea rhizophorae* from Graciosa region (Taperoá, southern Bahia State), and to investigate the presence of virulence genes of *Escherichia coli* (*stx1, stx2, eae, vir*) through quantitative real time PCR. A total of 160 oysters were collected at two different periods. All samples were negative for *Vibrio parahaemolyticus, Vibrio vulnificus, Staphylococcus aureus* and *Salmonella* spp. In contrast, samples were positive for *E. coli*, showing an average of $2.3x10^3$ cfu / g. At one point of collection, the *stx1* gene was detected, presenting 89 copies / g of oyster. Comparing our results with other studies conducted in the same region, the level of contamination remained stable, probably because it is an estuarine area that receives less flow of sanitary sewage and presents a lower environmental impact. However, the presence of the *stx1* gene is an alert for the possible presence of enterohemorrhagic *E. coli* in the estuarine environment.

Key words: Foodborne Diseases, qPCR, Oyster culture.

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