

## CHARACTERISTICS OF BACTERIAL PHENOTYPIC INDICATORS FOR FISH AND WATER QUALITY IN THE MUNICIPALITY OF MACAPÁ fish farms, STATE AMAPÁ

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### Summary:

The city of Macapá, located in the state of Amapá is part of the Eastern Amazon which is a region of great ecological importance, not only for its water potential but also for the socioeconomic role that it represents for the population. An important vehicle that contributes to human infections caused by pathogenic micro-organisms are the fish, especially when it is eaten uncooked or after an inadequate heat treatment. These micro-organisms are present even in fish stored at low temperatures, physical condition that allow survival, multiply and produce virulence factors also being capable of causing opportunistic infections. Pathogenic micro-organisms such as *Staphylococcus aureus*, *Salmonella spp.* and *Escherichia coli* and other bacterial indicators can cause gastrointestinal infection if the good practices of handling and storing food are not observed, raising the risk of diseases of interest in Health public. This work aims to isolate, to characterize and check phenotypically the frequency of bacterial indicators for water quality and fishes from fish farms of Macapá and its relevance in public health. Samples from five fish farms were analyzed, 3 samples of water from ponds and 5 of fishes from each fish farm, totaling 25 fish samples and 15 water. Analyses were performed in the laboratory of Microbiology of Food and Water of Public Health of Amapá Central Laboratory (LACEN-AP), the Atomic Absorption Laboratory and Bioprospecting (LAAB) and the Special Laboratory of Applied Microbiology (LEMA) both of UNIFAP. The results of laboratory tests revealed that the 5 evaluated fish farms are within the current legal standards when observing the microbiological qualities, physical and chemical water tanks, as well as the fish produced there had results within satisfactory limits for proper safety food and to guarantee the balance in quantity and quality of food consumed to achieve adequate nutrition, reducing this way the risk of diseases transmitted by water and food, thus promoting minimizing the risks to public health.

Keywords: Identity and Quality Standard, Health, Fish farming

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