THE MICROBIOLOGICAL QUALITY OF TUCUNARÉ (CICHLA OCELLARIS) SOLD IN THE LOWER AMAZON, PARÁ, SHOWS A HIGH COAGULASE-POSITIVE STAPHYLOCOCCUS AUREUS AND SALMONELLA SPP CONCENTRATION.

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RESUMO

Foodborne illnesses (DTAs) can be caused mainly by eating food contaminated by pathogenic microorganisms or ingesting their toxins. These diseases can cause symptoms such as nausea, vomiting, diarrhea, abdominal pain, and even death. Hygienic-sanitary assessment at fish markets can help ensure the quality of the fish offered, promoting customer confidence and preserving public health. This study aimed to evaluate the microbiological quality of tucunaré (*Cichla ocellaris*) sold in the Lower Amazon. The study was conducted at the leading fairs in Monte Alegre-Pará (PA), where 5 tucunarés were sampled. Microbiological analyses were carried out following SDA Normative Instruction nº 62 of 08/26/2003. To evaluate the presence of *Salmonella* spp in fish, selective enrichment was carried out in cystine selenite broth (35°C; 24h) and Rappaport Vassiliadis broth at (45°C; 24h), isolation was carried out on phenol red bright green agar lactose sucrose and Salmonella-Shigella agar, both at 35ºC for 24h. Bergey's key identified typical colonies. Baird-Parker agar with egg yolk and potassium tellurite (35ºC; 48h) was used to quantify coagulase-positive *Staphylococcus aureus* in the samples. Typical colonies with a transparent halo were counted and subjected to catalase and coagulase tests and identified using the Bergey key. Total and thermotolerant coliforms were measured using the most probable number (MPN) statistical method using lactose lauryl sulfate, bile brilliant green 2%, and EC broths. Unfortunately, *Salmonella* spp. was found in 40% of the peacock bass analyzed. For thermotolerant coliforms, our results showed that all samples had values lower than 3 CFU/g and, therefore, were within acceptable quality standards. However, high values of total coliforms were found in all fish (˃ 1100 CFU/g). For coagulase-positive *S. aureus*, all fish analyzed failed (fish 1= 4.9 x 10^3 CFU/g; fish 2= 21.6 x 10^3 CFU/g; fish 3= 136 x 10^3 CFU/g; fish 4 = 2.5 x 10^3 CFU/g; fish 5= 2 x 10^3 CFU/g). The high positive coagulase *S. aureus* concentration present in peacock bass samples from Monte Alegre-PA may be due to inadequate handling, contact with contaminated surfaces and water, and insufficient storage conditions. These bacteria in fish pose severe risks to public health, as they cause serious food poisoning and infections. Regular inspections must be carried out to ensure the quality and safety of the food consumed. Funding source: FAPESPA/ CNPQ 2022/14379272 and PA04 AmazonBiotec | Inova Amazônia – Tração.

PALAVRAS-CHAVE: tucunaré, Microbiological quality, Cichla ocellaris, coagulase-positive Staphylococcus aureus, Salmonella spp, public health

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