Evaluation of chemical and microbiological stability of the "minced fish" of Amazonian fishes

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Abstract: The State of Amazonas is the largest producer of fish from inland waters of the country. However, waste reach 13% of the annual production is estimated to be 125,000 tons / year. Alternative solutions through the food technology have been shown to be useful tools. Thus, the objective of this study was to evaluate the stability of "minced fish" produced with Amazonian fish species: aracu (Schizodon fasciatum), jaraqui (Semaprochilodus sp.) And mapará (Hypophthalmus edentatus) in industrial conditions and stored in a freezer ( -30 ° C). The study was conducted for 150 days and evaluated for (i) chemical and microbiological stability on the pH, total volatile bases, the protein solubility and water retention capacity (ii) analysis of sensory "minced fish". As for the chemical and nutritional aspects, and the jaraqui aracu species are considered semi-fat, and protein-caloric present within the range observed in the literature for freshwater fish. The mapará is considered a species with lower fat and protein concentration observed in the "minced fish". It was observed that the time of storage under freezing affected the quality of the product. The microbiological parameters provide further evidence that the jaraqui aracu and are promising species. The technological and nutritional qualities of these species remain stable even under prolonged freezing. Therefore, these species may have a high added value and emerge as a viable alternative to minimize two major socio-economic problems of the region: food waste and hunger.

Keywords: Food technology, freshwater fish, "minced fish"; protein stability; freezing.