

Microbiological quality and safety assessment of sun dried *Rastrineobola argentea* (Mukene) sold at selected landing sites of Lake Victoria and Peri Urban Kampala City Markets

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Silver fish (*Rastrineobola argentea*) also locally known in Uganda as Mukene contributes significantly to Ugandan national economy and its value was estimated at \$13 million US dollars in 2015. The fish is traditionally dried under direct sunshine on bare ground in unhygienic conditions, which expose it to dust and microbiological contamination. In this study, the microbial load of indicator and pathogenic organisms was determined in Mukene sold at selected landing sites of Lake Victoria and Kampala markets, Uganda. A total of 46 samples were collected randomly from landing sites and markets. The total aerobic counts, total coliforms, *Escherichia coli*, *Salmonella* and *Staphylococcus aureus* were enumerated using standard microbiological methods. The findings showed that Mukene was of low microbial quality for total plate counts, total coliforms, *E. coli* and *S. aureus* counts with values ranging from 2.48-8.61 log cfu/g, 0.36-3.09 log MPN/g, 0.36-3.04 log MPN/g and 0.10-6.66 log cfu/g, respectively. Of all samples analyzed, 63% were positive for *Salmonella* species. As salmonellae and staphylococci are often implicated in incidences of food poisoning, this study suggests that consumption of sun dried Mukene sold at landing sites of Lake Victoria, Uganda, poses a public health concern. There is the need to improve on hygiene during processing, storage and distribution of Mukene in Uganda.

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