

The quality of fish sourced from Kenya has been a problem both locally and internationally. Things worsened when it was realized that some fishermen were using chemicals to catch fish coupled with unhygienic handling and inadequate storage facilities.

This study was carried out to analyze the microbial hazards during the retailing of Nile perch (*Lates niloticus*) and Nile tilapia (*Oreochromis niloticus*) at Gikomba, Kibera, Kawangware and Korokocho markets. The work was carried out for a period of six months (September, 2002-February, 2003).

Results of this study showed that the total aerobic mesophilic colony counts ranged between 10^1 - 10^2 cfu/g. *Proteus* spp and *Pseudomonas* spp involved in spoilage were present in fish samples, fish-contact surfaces and water. The samples contained coliforms and faecal coliforms. These organisms were also isolated in fish-contact surfaces and the water where the fish were kept. For *Salmonella* spp there were 2.4 cells/g and 2.8 cells/g in fish samples collected from Kibera and Korokocho markets respectively. No isolations of *Staphylococcus aureus* and *Vibrio cholerae* were made either from fish, fish-contact surfaces or water. This study therefore shows that fish at retail markets are contaminated and may be a source of food-borne infection to the consumer. The results of this study will be used to advise the Public health Department, Fisheries Department and the Nairobi city council to monitor the sanitary conditions at the open-air fish markets in Kenya.