

Preliminary assessment of microbiological safety in fish retailed in Gampaha district

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Food-borne illnesses are known to result from the consumption of contaminated food and the major causative agents are pathogenic bacteria, fungi, viruses and parasites. Contamination of food occurs due to improper handling, processing and storage. Among the causative agents, bacterial flora is found to play a significant role in causing disease outbreaks in fish consumers. The present study aimed to evaluate the microbiological quality of food fish retailed in randomly selected outlets in Gampaha district with a view to ensuring food safety for the seafood consumers. The fish samples collected from each outlet were tested for total bacterial counts (TBC) and for the identification of specific pathogenic bacteria namely, Coliforms, Fecal coliforms, *Escherichia coli*, *Salmonella* spp. and *Staphylococcus* spp using standard procedures of Sri Lanka Standard Institution (SLS). The mean total bacterial counts reported in fish from the examined outlets ranged from 1.8×10^5 cfu/g (Welisara) to 3.5×10^6 cfu/g (Kelaniya) and the total Coliforms and Fecal Coliforms ranged from ND (not detected) to >1100 MPN/g while *E coli* ranged from 1.15MPN/g to >1100MPN/g. *Salmonella* spp were recorded from five tested outlets out of the eight while, *Staphylococcus* spp was not detected from any of the samples tested during the survey. The results of the present study highlight the need for immediate attention to improve the sanitary conditions of the outlets and implementation of good management practices.

Key words: Food fish, microbiological quality, good management practices