Bacterial pathogens in fresh fish sold from the wet market in Kota Kinabalu, Malaysia

ABSTRACT

This study aimed to evaluate the microbiological quality of commercial fresh fish. A total of 7 marine fish species (n = 9 per species) were collected and sold from the wet market in Kota Kinabalu, Malaysia. The prevalence of Pseudomonas spp. (100%) in fish was the highest followed by Aeromonas spp. (58%), Escherichia coli (46.03%), Vibrio spp. (22%), and Salmonella spp. (6.35%). The mean of the total plate counts in gill, gastrointestinal tract, skin and flesh samples were $5.32 \pm 0.69 \log$ cfu/g, $4.81 \pm 0.81 \log$ cfu/g, $4.23 \pm 0.58 \log$ cfu/cm2 and $3.99 \pm 0.58 \log$ cfu/g, respectively. Therefore, fresh fish sold in Kora Kinabalu has the potential to be contaminated with pathogenic bacteria. Effective control measures are required to prevent contamination during postharvest fish processing and consumers are advised to avoid eating raw fish to reduce health hazards from bacteria