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Identification of drawbacks in handling and processing methods of shrimp by-catch at Kalpitiya

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Abstract

In Sri Lanka shrimp trawling is of the main fishing gear practiced for marine shrimps and currently operates in Negombo, Hendala, and Kalpitiya which produce considerable amount of by-catch. The by-catch of shrimp trawl fishery at Kalpitiya is mainly used for the production of dried fish. It has been observed that existing handling practices along the value addition chain are responsible for the poor quality and low price of the end product. This study was aimed to identify drawbacks of fishermen and dried fish producers and to assess the quality of by-catch along the value addition chain in order to suggest efficient utilization methods with a view to improve the quality of end products. The microbial quality of fresh fish, dried fish and harbor water samples were tested for standard plate count, total Coliforms, fecal Coliforms, and presence of *E-coli* and *Salmonella.* A pre tested questionnaire based survey was conducted in July-October 2006 at Kalpitiya to collect data from individuals engaged along the value addition channels. Results indicated that average standard plate count (9.88 & 30.43 CFUx10^5/g), total coliform count (23.05 & 24.23 MPN/g) and fecal coliform count (8.28 & 9.00 MPN/g) of landed fresh and dried fish were significantly higher than SLSI standards. Of that 25% of landed fresh and 38% of dried fish samples responded positively for *E-coli.* Standard plate count of harbor water was 14.35 CFUx10^6/g and all samples were contaminated with *E-coli.* All respondents were not satisfied with the quality of end products. The reasons for poor quality as indicated by them were lack of availability of ice (75%), lack of infrastructure facilities (65%), uncertainty of markets (52%), less consideration of quality (47%) and less access to technology (41%). Respondents also identified that unavailability of potable water, insulated boxes, good landing jetty, racks for drying, and dried fish storage facilities and poor conditions of cold rooms as major issues which lead to the loss of quality. Results indicated that improvements to the infrastructure facilities and conducting proper awareness programs on handling practices are very important to improve the quality of value added products from shrimp trawl by catch.

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