

## **Investigation of quality of salted *Katsuwonus pelamis* (skipjack tuna) produced in offshore fishing boats landed at Beruwala fishing harbour**

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### **Abstracts**

The *Katsuwonus pelamis* (Skipjack tuna) is the main fish caught in gillnets by offshore boats. *Katsuwonus pelamis* has 18-20 days shelf life in melting ice. According to the recent findings more than one third of chilled fish landed from offshore fishing boats (OFBs) were found with unacceptable for consumption due to prolong trip duration than the shelf life of fish. In recent years, OFBs of Sri Lanka operated at several sites produce salted fish during their offshore fishing trip. Mainly, the skipjack caught at initial operations that falls over first 10 to 15 days of offshore fishing trip are processed into salted fish by dry salting on board and stacking in separate compartments or on board with draining facilities during the storage in OFBs.

Salted skipjack is landed from OFBs mainly at Beruwala fishery harbour in Kalutara district in the southwestern coast of Sri Lanka while becoming the second highest tuna fish landing site by OFBs offshore boats in Sri Lanka in 2004. The present study was conducted from August to December 2005 and from October to December 2006 to investigate the quality of salted *Katsuwonus pelamis* fish landed at Beruwala fishery harbour and reveal the better processing techniques of salted fish in OFBs.

The moisture content of landed fish was found within the range between 45 % and 55 % and the mean moisture content of salted fish is 50.14 %. Also water activity of all salted fish samples at landing site are found within a range between 0.735 and 0.851. The average salt content in the salted fish is 11.06 %. Microbial quality of salted fish was assessed by using total bacteria counts on Marine Agar and Salted Marine agar (5% NaCl added). Histamine content ranges from 17.145 mg / 100 g to 359.52 mg / 100 g of fish. The average histamine content was 143.16 mg / 100 g of fish. 57.14 % of salted fishes had the histamine content of more than the recommended level. The histamine content is not satisfying the acceptable quality conditions. These salted fishes are stored for about 30 to 40 days in OFB.

The production cost of salted fish is cheaper than the production of grade III ice fish that are unacceptable for human consumption. It is recommended to disseminate knowledge on good processing handling techniques on salted skipjack in OFBs among fishers to make this industry further economic and viable.

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