

LEVEL OF HISTAMINE IN TUNA FISH (*KATSUWONUS PELAMIS*) CAUGHT IN A MULTI-DAY BOAT AND STORED IN ICE

T.S.G. Fonseka, V.I. Ranjini and S.K. Seetha

Scombroid fish during spoilage is known to produce histamine which is known to cause food poisoning in humans leading to nausea, vomiting, diarrhoea and many other complications. Tuna is a common variety of blood fish consumed in Sri Lanka.

Multi-day boats are commonly used for catching tuna, and these fishing operations extend up to two weeks. The fish caught are stored in ice during fishing operation. In this study fish samples collected from five visits, were examined at monthly intervals. One of the fish from each days' catch was used for the study. Over twenty five fish collected during this period were examined for histamine content, total bacterial counts/g, coliforms/g, *E.coli*/g and histamine decarboxylating organisms/g and Hydrogen sulphide producers/g. The samples were also assessed by a taste panel for acceptability.

Only three samples shown to have histamine at a level detectable, of which two were in the range (15-40)mg/100 while the third one had very high level of histamine indicating temperature abuse. None of the samples had histamine decarboxylating organisms except for the one with very high level of histamine. The total bacterial counts ranged from 10^2 - 10^4 /g for over 95% of the samples. About 50% of the samples had hydrogen sulphide producers in the range (10 - 100)/g. None of the samples were positive for *E.coli*.

The results of this study show that fish caught in multi-day boat and stored up to 10 days in ice is quite safe for human consumption in relation to histamine levels.