SPOILAGE OF CERTAIN UNDER-UTILIZED FISH SPECIES DURING STORAGE IN ICE

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To my parents

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ABSTRACT

The storage life of iced chub mackerel (*Scombrus japonicus*) and horse mackerel (*Trachurus trachurus*) was studied. The quality was evaluated by means of organoleptic assessment, trimethylamine nitrogen determination (TMA-N), thiobarbituric acid test (TBA), and determination of the free fatty acids (FFA). Chub mackerel and horse mackerel were judged suitable for human consumption for at least 11 and 15 days, respectively, on the basis of sensory assessment, when the TMA-N was 1.66 mg % and 6.82 mg %, TBA values were 10.10 mg malonaldehyde/kg and 5.60 mg malonaldehyde/kg, and FFA content was 0.38 % and 0.28 %, respectively. A relationship between TMA-N content and sensory evaluation was found for horse mackerel. TMA-N values remained low for chub mackerel, not exceeding 2.59 mg %. TBA values increased for chub mackerel and horse mackerel but there was not relationship with sensory assessment. The FFA content increased progressively for both species.

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