

Biogenic amine changes in barramundi (*Lates calcarifer*) slices stored at 0 °C and 4 °C.

ABSTRACT

The biogenic amines formation in barramundi (*Lates calcarifer*) slices kept for 15 days at 0 °C and 4 °C were investigated using nine biogenic amines, total plate counts and biogenic amines formers. Significant differences in biogenic amines concentrations of barramundi slices stored at 4 °C and at 0 °C after 3 days of storage were observed. All amines, except tryptamine, 2-phenylethylamine, tyramine and agmatine in the slices increased with time during storage at both temperatures. At the end of the storage period, histamine concentrations were 82 mg/kg and 275 mg/kg for samples kept at 0 °C and 4 °C, respectively. At day 15, the total plate count was approximately 8.6 log CFU/g for sample kept at 0 °C and 9.7 log CFU/g for samples kept at 4 °C. Histamine-forming bacteria (HFB) in all samples ranged from 5.4 to 6.1 log CFU/g at 0 °C and 4 °C, respectively. The observed shelf-life of barramundi slices were 6–9 days.

Keyword: Biogenic amines; Barramundi; Refrigerated storage; Quality changes.