

Comparative study on organoleptic, microbiological and biochemical qualities of commercially and experimentally prepared salted and sun dried talang queen fish, *Scomberoides commersonianus*

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Abstract

Talang queen fish, *Scomberoides commersonianus* is the most important widely used species to produce salted and sun dried fish and has high market price in Jaffna district, Sri Lanka. The present research work was carried out from January to June 2011 to compare the qualities of commercially prepared dried fish sample of *S. commersonianus* from four different sites with that of the experimentally prepared one. Organoleptic assessment of samples showed experimentally prepared dry fish are of very good quality than commercially prepared ones. Microbial qualities of dried fish were determined using total bacteria count, total coliform count and methylene blue reduction test. Amount of sodium chloride, moisture content and amount of acid insoluble ash were also tested. The results indicated that the total bacteria count within the preparation sites ranged from 2.849×10^9 to 4.674×10^9 cells g^{-1} , the average number of coliforms from 19-25 cells g^{-1} and time taken to reduce methylene blue from 470-830 min. Percentage of sodium chloride content ranged from 28.68-35.05% and the moisture content ranged from 29.59-37.05%. The amount of acid insoluble ash varied from 1.05-1.15 mg g^{-1} . From the present study, it can be concluded that the experimentally prepared dry fish consists less microorganisms and high shelf life due to the clean preparation methods than the other traditional methods. Chemical and microbial analysis showed that the quality of experimentally prepared dry fish was better than the commercially sundried fish. Therefore, in our region it is essential to improve the dry fish preparation techniques by utilizing clean utensils and water, drying the fish in wooden racks or in the solar drying systems and paying more attention to the hygienic condition of people who are involved in preparation of dried fish.

Author keywords

Biochemical; Hygienic condition; Microbiological; Organoleptic; Talang queen fish

Indexed keywords

Species Index: Bacteria (microorganisms); *Scomberoides commersonianus*