

Some Chemical Characteristics of Fresh and Salt-Dried *Tilapia mossambica* Peters

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Abstract : Some chemical characteristics of fresh and salt-dried product of *Tilapia mossambica* Peters were studied. *Tilapia* was found to have a much higher carbohydrate content than other fishes hitherto analysed, and this is correlated to its feeding habits. It appears that there is a loss of protein and carbohydrate in the preparation of its salt-dried product. It is suggested that this loss may be due to the leaching out of soluble proteins and carbohydrates into the brine solution in which the fish are soaked overnight in the process of preparation. The amounts of protein, carbohydrate and ash in the salt-dried product was found to be significantly different from that of the fresh muscle. The calorific value of the salt-dried product, gram for gram, was found to be about 1.8 times that of the fresh fish.

1. Introduction

The chemical composition of fish is known to be dependent on a number of environmental factors, both physico-chemical and biological.⁸ Most studies on the chemical composition of fish have been carried out on marine species and on anadromous salmonids. Studies on freshwater fishes are rare and few.

Studies on the chemical composition of a number of species of fish from Sri Lanka, both marine and estuarine, have been carried out by Lantz and Gunasekera⁹ and Peiris and Grero.^{14,15} However, these workers based their determinations on a single sample of a number of individuals pooled together of each species and did not attempt to correlate their findings to size or to any other variable. Perera and de Silva,¹² on the other hand, studied the chemical composition of young grey mullet, *Mugil cephalus* L., with a view of evaluating the effect of food regime and salinity on the chemical composition. Urugoda and Kottegoda¹⁷ estimated the histidine content of skipjack tuna in an attempt to correlate adverse reactions to the drug isoniazid in groups of patients with a high histamine content in the blood as a result of consumption of skipjack tuna.

Tilapia mossambica Peters is an exotic species which was introduced into Sri Lanka in 1952.³ This species has primarily contributed for the increase in inland fish production over the last decade, which at present accounts for 10% of the total,