PREFACE

Fishing in India is a major industry in its coastal states, employing over 14 million people. The marine and freshwater resources offer a combined sustainable catch fishing potential of over 4 million metric tonnes of fish. In addition, India's water and natural resources offer a 10 fold growth potential in aquaculture.

India was to adopt fishing knowledge, regulatory reforms and sustainability policies adopted by China over the last two decades. The marine fish harvested in India consist of about 65 commercially important species/groups. Pelagic and midwater species contributed about 52% of the total marine fish. Marine and freshwater catch fishing combined with aquaculture fish farming is a rapidly growing industry in India.

The quality of fish and fish products is an important concern of the industry and consumers. Deterioration of fish products mainly occurs as a result of bacteriological activity and chemical changes during processing and storage. Storage conditions are the most important factors that affect the quality of fishery products.
*Leiognathus splendens* and *Leiognathus edentula* are commonly available fish along the Puducherry and Chennai coast almost on a regular basis.

The main constituents of TVN are trimethylamine and ammonia. Its amount increases with time of storage in the unfrozen state. Trimethylamine originates from bacterial decomposition. Its presence in fish is therefore taken as an indication for bacterial growth, while the ammonia comes from decomposition of amino acids – thus reducing the quality of the available protein.

Levels of mainly 40 mg TVN per 100 g fish mass are regarded by the industry as limits for a good quality fish meal. Furthermore biogenic amines, like histamine, are formed if the bacterial degradation of protein (amino acids) has started and is therefore an important criterion for the quality of the fish too.

The present study was undertaken to find out the fitness of the fish that are available in the market for consumption and to find out the effect of storage at refrigeration condition for different durations on the production of TMA-N.