3. OBJECTIVES OF THE PRESENT STUDY

Eel is considered as a luxury and delicious sea foods. Even though, it is considered as food fish and their exploitation is limited in India. The average annual landing of eel fish increased to 10,232 tonnes during 2004. Subsequently, decreased to 7,998 tons in the end of that year and 8548 tons in 2005 and further increased to 10,201 tons in 2006. Some of the eels like Congresox talabonoides, C. talabon, Muraenesox cinereus and M. bagio are commercially exploited from the fishing grounds within the 200 m depth zone of Indian EEZ. In general, detailed investigations on the systematic and eco-biology of the marine eel in Tropical Asian waters needed to be revised. Large quantities of eel fish were landed in the landing centers along the southeast coast but so far no attempt has been made to study the distribution and its nutritive value. In this point of view, the present research was carried out with the following objectives:

- To project a comprehensive systematic account and current status of eel fish belonging to the order Anguilliformes along Parangipettai coastal waters (Annan Kovil and Mudasalodai landing centres).
- To identify the eel fish based on the molecular characterization along Parangipettai coastal waters.
- To evaluate the seasonal changes in the biochemical composition of the Moray eel (Thyrsoidea macrura), Daggertooth pike conger eel (Muraenesox cinereus) and Indian pike conger eel (Congresox talabonoides).
- To extract and characterize the collagen from the Moray eel (Thyrsoidea macrura) and Indian pike Conger eel (Congresox talabonoides).
- To extract and characterize the serum protein of Moray eel (Thyrsoidea macrura) as well as to determine its antimicrobial and anticancer activity.