

## Fish Aging laboratory at CMFRI Kochi

Fisheries management relies on proper understanding of fish population dynamics including biological parameters of the species such as size at maturity, spawning season & duration, mortality, age and growth. Age forms the basis for studies of population parameters providing information on the health of any fish stock, which are helpful in formulating management strategies for sustainable fisheries. Traditionally the age of fishes is estimated from length frequency data by tracing progression of the mode, the precision of which depends on quality of input data. Precise estimate of age can be made by proper interpretation of inscriptions on selected hard parts of the body through image analysis.

Fish ageing facility was established and started functioning at CMFRI, Kochi from June 2015. The laboratory is equipped with advanced facilities for digital imaging and analysis. The facility is aimed at supplementing fishery biology and stock assessment research programmes, by determining the age of fishes using hard parts. The research outcomes of the laboratory is expected to provide a great impetus to the marine fisheries research of the country. The laboratory is presently building a database of the age structure of major exploited resources for application in stock assessment models. Ongoing programmes of the laboratory include ageing studies on Indian oil sardine, Indian mackerel, yellowfin tuna, silver pompano Cobia and Mahimahi. Another ongoing program of the facility include preparation of otolith manual of Indian marine fishes with detailed otolith morphometrics for species and stock confirmation.

The laboratory also offers training and skill enhancement programmes on fish ageing for researchers. The laboratory also provides technical services related to hard part collection, processing, ageing and otolith morphometrics.

