

SOUVENIR



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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE:
MY REMINISCENCES AND IMPRESSIONS

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I am glad to be associated with the souvenir which is being released on the auspicious occasion of the inauguration of the new headquarters building of the Central Marine Fisheries Research Institute at Cochin. In this context, it may not be out of place to recall here the simple 'inauguration' of the Institute itself about four decades back, i.e., in 1947, in a single room accommodation given by the University of Madras in the Zoological Research Laboratory at Chepauk, where I was working as a Research Assistant at that time. In the absence of Dr. C. P. Gnanamuthu, the Director of the Laboratory, I had the rare privilege of receiving the distinguished scientists, Dr. H. Srinivasa Rao, Chief Research Officer and Dr. N. Kesava Panikkar, Special Officer, and giving them the necessary facilities. Dr. Rao was empowered with the wide powers of direct recruitment and I was offered the first gazetted post of Sardine Research Officer on a higher start, which I accepted after relinquishing my post in the Laboratory, in charge of a fisheries research scheme financed by the Imperial Council of Agricultural Research. I was associated with the Institute in different capacities, from its inception till my voluntary retirement as Director about ten years back. I can look back with satisfaction that I have contributed in no small measure to the growth of the Institute, during my service spanning about three decades.

Fisheries research is the main responsibility of the Union Government and accordingly the Institute's objectives were to estimate the resources and rate of exploitation, to carry out research on the major commercial fisheries, to study the possibility of increasing fish production and to formulate measures for conservation of the fishery resources, if found necessary. In accordance with these policies, I was assigned the oil sardine research programme and transferred to Calicut to organise the sub-Station and also to carry out investigations on the oil sardine fishery which is the most important commercial fishery of the west coast. I was the principal investigator of this project for several years and the research work carried out by me on the oil sardine and other allied fishes was

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consolidated and published as a monograph. Subsequently several persons have been working on the sardine research programme and valuable data have been collected about this fishery. In my opinion high priority should be given to studies on egg and larval surveys for elucidating the factors responsible for the wide fluctuations encountered in the fishery in view of the importance of this fishery in the overall fish production of the country.

I was also the Head of the Fishery Survey Division for a number of years and the main function of the Division was the estimation of marine fish production in the country. A multistage sampling system was devised for this purpose and valuable data extending over several years have been collected. In recent years, the industry has introduced several innovations for augmenting fish production, but the effect of these is not properly reflected in the catch statistics which show only marginal increase in production. Of late, the different maritime States have also evolved their own machinery for independent collection of landing data and in view of the wide differences in these figures for some States, reconciliation of the data collected by the different States with estimates made by the Institute has become a regular feature. In the context of these differences it is desirable that the entire sampling system is reassessed and remedial steps taken to overcome the shortcomings. In fact, the time has come to relegate the function of collection of fish landing data to the different maritime States and concentrate on specific subjects like stock assessment, etc.

Mariculture was attempted at Mandapam Camp from the inception of the Institute and a series of experimental fish ponds were constructed for this purpose, the sea water in the ponds being replenished by tidal influence. Unfortunately, several impediments hampered the operation of these fish ponds, particularly in the renewal of the sea water caused by the low tidal amplitude. Perhaps, a wind-mill type of pump would have served the purpose better, since strong winds blow in the region throughout the year. The cyclonic tidal wave which hit the region in 1964 washed away all the fish ponds and the field laboratory and thus ending that phase in the initial maricultural activity of the Institute.

During my tenure as the Director of the Institute, several schemes on mariculture were implemented which yielded very interesting results. The elvers which abound the south east coastal regions, and which have considerable export potential, were reared under laboratory conditions and the growth rate was found to be much better than that of the Japanese elvers, and consequently the Japanese eel culturists evinced interest in importing Indian elvers. The occurrence of pearl oyster spats, observed accidentally at Vizhinjam, was utilised for the production of cultured pearls. All the commercially important sea-weeds occurring in the neighbourhood of Mandapam Camp were cultivated in special rafts, in the shallow inshore waters and excellent results were obtained. Even

salt-pan fish culture undertaken at Tuticorin yielded very good production figures exceeding those obtained in the fish farm at Mandapam Camp. Based on these highly encouraging results, several pilot projects were prepared jointly with the respective States and submitted to the NRDC for approval.

I have made an analysis of the fish catch during the early plan periods and the landing trends of the major fisheries have shown a declining tendency, barring the oil sardine fishery. Biological studies carried out subsequently on Bombay-duck have also confirmed this finding. It is desirable that this study is continued especially in view of the very low increase in annual fish production. Practically no work has been undertaken by the Institute on the destructive fisheries prevalent in some parts of the country. The post-larval fishery known as "nonnavu" is a very good example of highly destructive fishery carried out along the southern stretch of the Kerala coast. One of my Ph.D. students observed more than 90 species of post-larval fishes involved in the "nonnavu" fishery during a three year study conducted at only one centre, namely, Sanghumugom of Trivandrum city. The colossal waste of potential fishery resources can easily be judged by the fact that, on a moderate estimate, about 180 metric tonnes of post-larvae are landed in a single day from the "nonnavu" fishery zone. It is desirable that the Institute make a survey of such destructive fisheries and study their impact on the fishery resources for adopting suitable remedial measures.

The scope for publishing the scientific papers produced by the staff of the Institute should be adequately increased to cope up with the multifaceted activities. At present, the Institute publishes the well established and widely circulated *Indian Journal of Fisheries* and the *Journal of the Marine Biological Association of India*. The Bulletin of the Institute was converted by me into treatises on specified subjects and these Bulletins were in great demand and I get requests for them even now. The Institute has recently started *Marine Fisheries Information Service*. I feel that this publication should be replaced by a suitable Journal like *Nature* intended for small papers and notes prepared in conformity with the standard format adopted for scientific papers.

It is very fortunate that the next one decade of the Institute's activities will be guided by Dr. James, who is a product of the Institute and one of the best fishery scientists of the country. His varied experience as a Fishery Scientist, Professor of Fishery Biology and Asst. Director General (Fisheries) in ICAR will be highly beneficial in the formulation and implementation of schemes of national importance. I have great pleasure in wishing him and the scientists of the Institute every success.