

SUMMER INSTITUTE IN  
CULTURE OF EDIBLE MOLLUSCS

HELD AT

TUTICORIN RESEARCH CENTRE OF  
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

From 26 May to 24 June 1980

Central Marine Fisheries Research Institute

P.B. 1912, COCHIN - 682018, INDIA

Indian Council of Agricultural Research

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LIFE BY CENTRAL MARINE FISHERIES  
RESEARCH INSTITUTE, ERNAKULAM  
COCHIN - 682 031, INDIA

EXCERPTS FROM THE INAUGURAL ADDRESS BY DR. E.G. SILAS

ON 26-5-1980

Dr. Thuljaram Rao, Mr. Nayar, Mr. Ambrose Fernando, Mr. Joseph,  
Mr. Chidambaram, Ladies and gentlemen,

Mr. Nayar, the Director of the Summer Institute has given me two tasks - one to inaugurate the Summer Institute, and the second to give a talk on the subject of culture of edible molluscs. I would like to touch upon a few aspects of culture of edible molluscs which are very relevant to our training programme which is to be inaugurated to-day. Firstly, this programme is primarily meant for those who could further take it for inclusion in academic course curricula to become part of major teaching programme. The Summer Institute should also draw attention to the new lines of research and development in this subject area. It is with this reason that we have invited most of the participants from the academic universities, Agricultural Universities and other Departments which have programmes of this nature.

When the Indian Council of Agricultural Research sent round a circular and asked us to suggest a topic we felt that culture of edible molluscs is a vitally important area in which on going researches will have to be shared with those who would take the message and help in the overall future advancement of R & D and extension training in this field.

Culture of edible molluscs is very important from the point of view of production as no other animal gives such high biomass of production as the bivalves in culture system. Unfortunately in developing countries bivalves figure only as a subsistence fishery. In India it has formed the food of the poorest of the poor people living along certain parts of our coast. In short, molluscan fishery, particularly, for clams, oysters and mussels is in a state at which the prawn fishery was about 25 years ago. This comparison is mainly from the level of human consumption and acceptability. However, within the

next decade, molluscs, especially mussels and oysters may also have a demand as much as prawns as the acceptability of molluscan meat within the country increases side by side with a growing demand for this product in the world market. This is the reason why CMFRI has given priority to the research programmes concerning the culture of various cultivable species of molluscs.

There is a global awareness on the importance of aquaculture to meet the world demand for fish and shell fish. Yields per unit area from aquaculture are much higher than traditional capture fisheries and on account of the uncertainties in the latter, more intensive efforts are going on for developing high production aquaculture systems. Development of inland aquaculture of fresh water fish and other organisms has a number of constraints and limitations, such as land and water use and management, conflict with agriculturists, pollution problem and so on. Coastal aquaculture extending to farming in the sea offers immense possibilities for development as most of the brackishwater areas, inundated coastal areas and the inshore waters where traditional fishing is not practised are unutilised or under-utilised.

Any technology in aquaculture developed for transfer to the coastal people who are living far below the poverty line, should be such that it can be easily assimilated and propagated. It is imperative that technology be low-cost. Fortunately in our national fisheries plan, we have given high priority to coastal aquaculture and as a result every maritime State is trying to set up Pilot Projects and production oriented units for prawn and finfish culture. We have nearly 2 million hectares of brackish water areas along our coast which could be fruitfully utilised for finfish and shellfish culture. This is in addition to the inshore coastal waters and mangrovefringed areas. At present only a few thousand metric tonnes of finfish are harvested from the brackish water areas through traditional farm culture systems adopted in parts of Kerala and West Bengal. An accelerated programme is needed to judiciously and expeditiously develop

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this vast potential. Thus today we are faced with a situation where we cannot afford to wait until 100 per cent results are obtained in research and production before training and extension programmes can be taken up. The priorities are such that it has become necessary to telescope research, production for economic viability, training and extension in such a way that simultaneous development in these different areas are occurring. The technical feasibility of culture operations when transferred as a low-cost technology as in the case of culture of mussels and oysters has been giving good dividends. It has not only given us confidence to go on large scale culture for testing the economic viability, but also get back an immense amount of feed back information.

At Tuticorin we have 3 major mariculture programmes underway viz., Pearl Oyster Culture and Culture Pearl Production; Edible Oyster Culture and Crab Culture. The technology of pearl culture developed indigenously at the Centre is being improved and it is attracting the attention of the entrepreneurs who have expressed interest for taking up the technology in large-scale. On the other hand, the edible oyster culture has attracted the small fishermen and today in the Institute's Lab-to-Land Programme at Tuticorin about 20 families are involved with oyster culture. They are keenly interested in the whole process and the Institute is trying to find suitable market avenues for the sale of the cultured oysters.

At other centres particularly at Calicut we have been able to successfully demonstrate open sea mussel culture (the green mussel Perna viridis) which has been taken up by about 30 families of traditional fishermen employed in diving and picking mussel from the sea bed. Product development and marketing are related problems in this sector which need our priority attention. New techniques of having submerged rafts which could be utilised for suspended culture of mussels and oysters throughout the year are also <sup>being</sup> developed. The Research and Development going into this entire system is a continuous process and the Institute hopes to come up with newer innovations for the better utilisation of our brackish and coastal waters.

Recently I had occasion to visit some of the aquaculture facilities in Japan, United States of America and the United Kingdom. I find that the systems that we are developing in this country in mariculture are aimed at evolving low cost technologies and thereby are very unique. The production systems that I found in the developed countries are very expensive which may not be relevant to our situation. However, we are blessed with many desirable cultivable species of molluscs, warmer highly productive waters for phenomenally faster growth and relatively unpolluted waters as plus points. The participants in this Summer Institute would be learning and seeing some new things that they may not be finding in the books. As a follow up programme to this course we would advise the university teachers, including those from the Agricultural Universities to be in touch with us so that more information as and when developed by the Institute could be passed on to them to upgrade the teaching programmes.

There are many problems that could be tackled by the academic universities in basic research problems concerning aquaculture of molluscs. As participants in the Summer Institute you will have the benefit of hearing about this not from the theoreticians, but from my colleagues who have developed these systems, and may be considered leaders in this country in mariculture. I hope you will be able to take advantage of this expertise during your stay here. I hereby inaugurate this Summer Institute and wish you all well.