

A lab for prawn propagation

By Our Staff Reporter

A NEW prawn culture laboratory has been established by the Central Marine Fisheries Research Institute at Narakkal, across the Ernakulam backwaters.

This field laboratory is the first of its kind to be set up by the CMFRI under an ad-hoc scheme for 'marine prawn culture and propagation' sanctioned by the Indian Council of Agricultural Research.

The scheme aims at carrying out field experiments to determine necessary work details to introduce scientific prawn farming.

The work will include production of prawn seeds of desired species in large quantities, determination of optimum intensity of stocking rate per given area for and feeding of the prawns stocked, development of cheap artificial feed for obtaining maximum yield in the shortest time possible, rearing techniques to be followed under different environment conditions.

This ad hoc scheme has a total outlay of Rs. 5.3 lakhs from cess funds, to be used in 5 years.

Work on the scheme began in January 1974 by a team headed by Mr. K. H. Mohamed, fishery scientist and head of the section of crustacean fisheries of CMFRI as principal investigator.

Since then the scheme has been able to locate large concentration of seedprawns belonging to the expensive variety of prawn 'naran' — *penaeus indicus* — the suriwaters of Narakkal and adjacent areas. The method of collection has been perfected and over a million post-larvae 'naran' can be collected per day at certain times.

The outcome of this scheme can eventually bring in the vast stretches of kharlands and kazzalands of Karnataka, Goa and Maharashtra into a system of alternate harvesting of prawn and

paddy. Such a system will greatly improve the rural economy of the kharland areas as they are presently utilised only for a single-crop paddy of short duration.

Development of prawn fisheries in India has been so rapid that it has become the world's foremost capture fishery for prawns within the past 15 years.

Export earnings from prawn and prawn products have increased from about Rs. 3 crores in 1960 to over Rs. 75 crores in 1974. In terms of weight, the total prawn catch in India has, during the last 15 years, increased from about 68,000 to 1,67,000 tonnes.

The CMFRI has been carrying out investigations in a comprehensive way covering all aspects of capture fisheries for prawns to maintain the catches to a sustained level.

But, capture fisheries has its own limitations and certain disturbing tendencies such as fall in catch per unit effort in some areas in the recent years have been a matter of concern.

This led the CMFRI to more intensified work on prawns stock to evolve suitable management policies and at the same time look for new resources from new grounds and methods to augment natural production through culture practices.

The CMFRI has been carrying out intensive researches on techniques of culturing prawns in low-

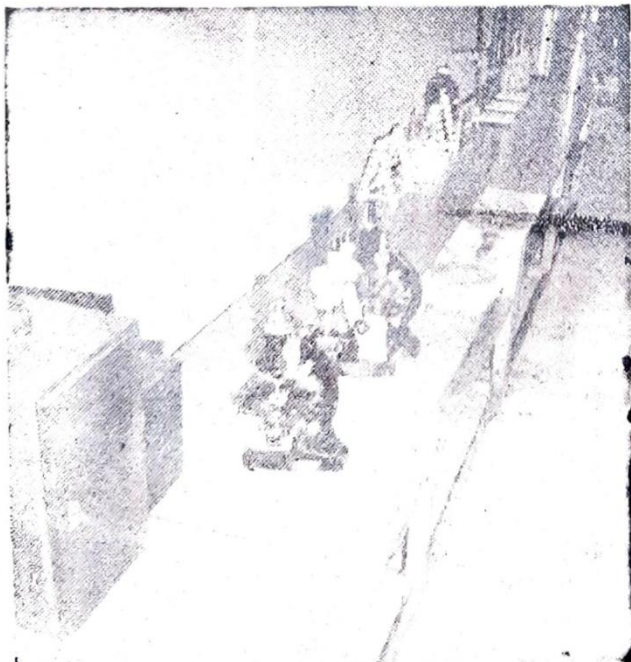
lying coastal and estuarine areas of the country. These researches have shown that the traditional practice of paddyfield prawn culture in the kharland regions of central Kerala can be improved by adopting scientific methods which would increase production and income several folds.

The traditional methods of prawn culture in paddyfields give a low yield of about 500 to 1000 kg per hectare a year.

It is possible to carry out selective stocking using the costly variety of prawn 'naran' in greater percentage in the paddyfields by eliminating the smaller low-priced variety telli (*metapenaeus dobsoni*). The CMFRI has also been carrying out a series of experiments on the artificial rearing of marine prawns of commercial importance, collection of prawn seed on a large scale and culturing of these to harvestable size.

What has now become the prawn culture laboratory had its origin in 1951 when a research unit headed by Mr. M. Krishna Menon was established at Narakkal. The CMFRI headquarters was in Mandapam in Tamil Nadu then.

In 1957, by when the unit having further strengthened and taken on additional lines of work, it was developed into a sub-station of the CMFRI and soon the CMFRI headquarters itself moved over to Cochin.



A room in the prawn culture laboratory with a row of instruments.



The estuarine tanks — the ponds where prawns are lured into and nursed for experiments