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9. MOLLUSCAN SHELL DEPOSITS ALONG PINNAKKAYAL—VALINOKKOM COAST AND THEIR EXPLOITATION

K Satyanarayana Rao, C T. Rajan and K Ramadoss
Central Marine Fisheries Research Institute, Cochin 682 031

ABSTRACT

Marine molluscan shell deposits are distributed at different places between Pinnal(ayal and Valmoltkom on the southwest coast of India and support a good shell lime Industry. The different areas where the lime shell deposits occur have been surveyed and the nature and extent of the deposits, the species composition, the methods of exploitation, magnitude of production, utilization and annual turnover are dealt with.

INTRODUCTION

Along the east coast of India molluscan lime shell exploitation is a means of livelihood to local people at a number of places (Hornell 1916; Jones 1970; Rao 1969; Alagarswami and Narasimham 1973; Rao 1974). Between Pinnal(ayal and Valinokkam on the southeast coast there are many places where molluscan shell deposits are being exploited commercially for various purposes. However studies have not been attempted in this subject. The distribution of the deposits, species composition, magnitude of exploitation and utilization have been studied in this work and the results are presented in this paper.

MATERIAL AND METHODS

The places where the shell deposits occur have been surveyed and data collected on the areas where they are distributed, depth at which they occur, the thickness of the deposits, environmental conditions, methods of exploitation, extent of production and the purposes for which they are utilized.

RESULTS

The shell deposits occur at Kovangad, Mariyour, Agaram and Valinokkam. The deposits are of recent origin formed in the post-pliocene period.
Shells deposits at Mariyoor

The shell deposits in this area occur at a depth of 0.2 m to 1.0 m in sediment which is mostly sandy with some amount of silt. In the rainy months the area is submerged by rain water flow from the adjoining Kallar river. The deposits are the recent formations, lie scattered and not dense. Many of the area where the deposits occur have been taken on lease by salt companies for construction of salt pans. The loosely occurring shells are removed by digging and hand picking when salt pans are prepared. Shells of oysters Crassostrea matrasensis. 40-180 mm in length form bulk of the deposits. The remaining portion consists of windowpane oysters Werefa/Xcwfa and >7arfa«.

The shells are gathered by the labourers of the salt pans located at Mariyoor. When lorry loads accumulate they sell the shells to companies in Madurai for conversion into lime, needed for building construction and poultry feeding. Exploitation is being carried out in this place since seven years and the annual production from this area varies from 150-2001.

Shell deposits at Agaram

The deposits are distributed in the areas adjoining the Pinnakayal estuary. These deposits also are recent formation and occur at about 0.3 to 1 m below the surface in sandy muddy sediment. M. casta is the main component of the lime shell deposits, the rest consisting of M. meretrix and gastropod shells. The shell deposits are being exploited by digging the earth and hand picking. Shells are collected by agricultural workers of Agaram and neighbouring places and transported by lorries to SPIC and paper mills. The annual production is about 150 t.

Shell deposits at Valinokkam

The deposits at Valinokkam were exploited till very recently. The shells comprised of C. narfases7/s and to a lesser extent Meretrix sp. The shells were present in sediment which was mainly sand with some amount of silt. It is stated that previously as much as 60 t of shells were gathered anually and transported by lorries to Calcium carbide companies.

REMARKS

The above account that molluscan shells occurring as subsurface deposits are collected regularly at the places mentioned. The lime shell deposits are of significant importance to the economy of the coastal rural areas as it provides mean of livelihood to the people particularly when they have other occupation like fishing or cultivation. The shell deposits are distributed over large stretches at some of the places like Kovangad and Agaram. At present time we have no information on the quantum of shell deposits available for exploitation in the areas dealt with. In this context there is need for a proper survey to determine the magnitude of the deposits. It will be helpful in generating more employment to the economically weaker section of the population in the areas of the region and also result in increased production of the lime shells for which there is growing demand from various industries like lime, fertilizer, calcium carbide, cement and poultry.

REFERENCES


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