

RESEARCH ARTICLE

## Resource analysis of venerid clams along the south-west coast of Maharashtra

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**ABSTRACT** - Clams belonging to Genus *Paphia*, *Katelysia* and *Meretrix* represent the Family Veneridae along the north - west coast of Maharashtra. To assess the resources of these clams, the Kalbadevi and Kajali estuaries as well as Purnagad and Jaitapur creeks were selected along this coast. Fortnightly sampling was done at four main stations along these estuaries from May 2008 to April 2010. During the present study, *Meretrix* sp. was found to be dominant at all the stations. *P. malabarica* was not reported in the catch at Sakhartar-Shirgaon, Purnagad and Sakharinate – Dhaulvalli except Karla – Juve from May 2008 to August 2008, May 2008 to March 2009 and May 2008 to December 2009, respectively. Stocks of *P. malabarica* were seen to be increasing at all the four stations in the following months, but clams of very small sizes were recorded in the catch, indicating harvesting of recruits. Recruitment of *P. malabarica* occurred during September, *K. opima* during December – January and *Meretrix* sp. during September. Highest catch of *P. malabarica* was during April 2010 at all stations, *K. opima* during May – July (all stations) and *Meretrix* sp. during May 2008 (Sakhartar-Shirgaon), August 2008 (Karla – Juve), November 2008 (Purnagad-Gavkhadi) and October 2008 (Sakharinate – Dhaulvalli). The abundance of the clams can be associated with the wide fluctuations in salinity, as they showed progressive delay in the time of opening of valves, thereby isolating themselves from the outside environment. Alternation of dominance was seen between *P. malabarica* and *Meretrix* spp.

**KEY WORDS** - Venerid clam, *Paphia malabarica*, Abundance, Salinity, Temperature

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### INTRODUCTION.....

India has rich molluscan resources all along the coast, in inshore waters, bays, backwaters and estuaries. Among the exploited molluscan resources, bivalves contribute to bulk of the catch and clams are most important in abundance and occurrence in both east and west coast of India.

Several venerid clams species occur along the south - west coast of Maharashtra. Clams belonging to Genus *Paphia*, *Katelysia* and *Meretrix* represent the Family Veneridae along this coast. Rich beds of these clams are found in the Kalbadevi and Kajali estuaries as well as Purnagad and Jaitapur creeks along Ratnagiri coast. Clam catches are exploited on commercial basis from these areas throughout the year. Commercial exploitation of clams in these regions is mostly done by hand picking and by hand operated dredge net locally

called as 'Kurund'. From here, the clams are sold for local as well as for external markets due to the heavy demand. The exploited live clams are kept in the sand along the Kalbadevi estuary, when there is no demand. However, the continuous exploitation of these clams has led to decrease in the clam stocks along the coast and their status has to be studied from the future point of view.

Hence, the present project was undertaken to study the resources of venerid clams along the Ratnagiri coast to understand the present status of this fishery and to determine its sustainable parameters. The project aims to study the catch composition the venerid clams of along the north – west coast of Maharashtra. Stock assessment of venerid clam resources of this coast to determine the present status of the clam fishery of along this coast was also undertaken.