

Revival of bivalve *Catelysia opima* (Gmelin) fishery along Dadar beach, Mumbai

Sudden abundance of bivalves in large numbers was observed during March-June'09 along Dadar beach in Mumbai in the intertidal zone. About 200-400 men, women and children from the nearby areas began excavating and hand picking the bivalves daily from the sand. There is very good demand for these bivalves and they fetched a good price in the local market.

The bivalve was identified as *Catelysia opima* (Gmelin) (Class: Bivalvia, Order: Veneroidea, Family: Veneridae). The shells were moderate in size and ranged in length (L) between 10 mm to 33 mm



Catelysia opima



Hand picking bivalves

with the corresponding body weight (W) ranging from 0.211 to 4.693 g. The length-weight relationship was estimated as $W = 0.00058 * L^{2.5207}$ and the average density of animals was 24 per square meter. The other bivalve species which were found along with this species were *Gafrarium divaricata* (Chemnitz) and *Meretrix meretrix* (Linne) but were less in number. These bivalves were exploited maximum during full moon and new moon days when the tides are

extremely low and large intertidal area is exposed.

Local fishermen were of the opinion that such population eruption occurs every five year but an eruption of this magnitude was observed after a period of twenty years. The reason for such eruptions can be attributed to the comparatively cleaner water along Mahim bay due to the closure of a textile mill which used to indiscriminately discharge chlorine rich effluents in to the sea. Secondly, the commissioning of the 'Marine outfall sewage project' along Mumbai coast has also improved the sea water quality and reduced the total suspended solids from the sewage that was deteriorating the beach due to decomposition and purification of organic matter causing hypoxic conditions.

(Mumbai Research Centre)