

# Marine Fisheries

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**Technical and  
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The Malabar region of Kerala (Kozhikode, Kannur, Mahe, Kasargod) has significant bivalve resources contributing to subsistence fisheries of the local population. Clams and oysters form the major resources in the estuaries and backwaters. The clams, *Meretrix casta*, *Meretrix meretrix*, *Villorita cyprinoides*, *Paphia malabarica* and the edible oyster, *Crassostrea madrasensis* form the major exploited bivalve resources of commercial significance. The clams are mainly

collected by handpicking / scoop nets during low tides, while the edible oyster is chipped out with the help of a knife. The occurrence of clams and oysters in different estuaries of Malabar region is listed in Table 1 below.

Exploitation of clams and oysters is highly seasonal and the production fluctuates from year to year. The total bivalve production from Kozhikode to Kannur region was estimated at 15.682 t during 2006. The total

Table 1: Distribution of clams and oysters in different regions and estuaries of Malabar

Region	Estuary	Resource
Kozhikode	Korapuzha	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Crassostrea madrasensis</i>
	Moorad	<i>Meretrix casta</i> , <i>M. meretrix</i> *, <i>Villorita cyprinoides</i> , <i>Crassostrea madrasensis</i> , <i>Saccostrea cucullata</i>
	Chaliyar	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Crassostrea madrasensis</i>
Mahe	Mahe	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Crassostrea madrasensis</i>
Kannur	Dharmadom	<i>Paphia malabarica</i> , <i>Anadara granosa</i> *, <i>Crassostrea madrasensis</i>
	Valapattinam	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Paphia malabarica</i> , <i>Crassostrea madrasensis</i>
Kasargod	Padanne	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Paphia malabarica</i>
	Chandragiri	<i>Meretrix casta</i> , <i>Villorita cyprinoides</i> , <i>Paphia malabarica</i> , <i>Crassostrea madrasensis</i>

\*Very sparse population

bivalve production increased by 25% (3932 t) over the previous year (Fig. 1). This includes the green mussel *Perna viridis* from the coastal beds, constituting nearly 65% of the total bivalve production. *M. casta* contributes

5% to the total bivalve production while *P. malabarica* contributes only 0.2%, and *C. madrasensis* 0.3%. The bivalve exploitation during 2005-2006 in major estuaries is presented in Fig. 2.

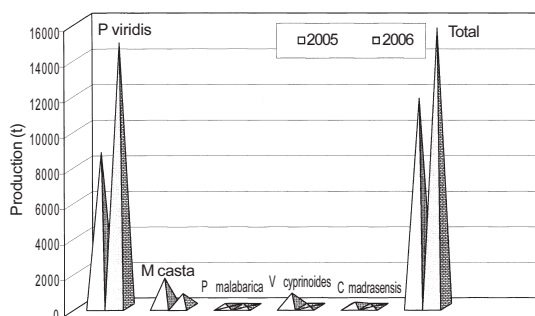


Fig. 1. Bivalve production : Malabar 2005-2006

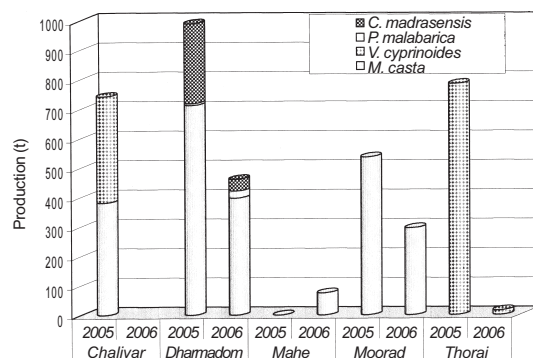


Fig. 2. Clam/oyster production in major estuaries: 2005-06

***Meretrix casta*:** *M. casta* is exploited from Korapuzha, Moorad, Chaliyar, Mahe and Valapattinam estuaries in Kozhikode and Kannur regions. It contributes nearly 10% to the total bivalve production. It is exploited for meat as well as shell. Significant quantities are landed from Moorad and Chaliyar estuaries. The total production of *M. casta* during 2000 to 2006 was 5915 t, with an average annual production of 845 t. The total effort during the period was 46460 (persons) with an average effort of 6637. The CPUE was 127 kg. The fishery fluctuated between the years. Maximum landings were recorded in 2003 at 1954 t followed by 2001 at 1690 t. The effort increased several folds during 2002-2003 (Fig. 3). Peak fishing occurs during November to May. The clams are sold at the rate of Rs. 2 /Kg shell-on.

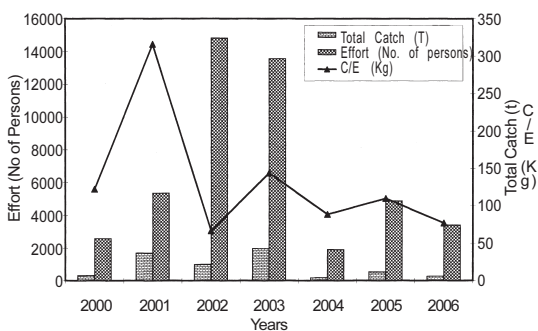


Fig. 3. Production of *Meretrix casta*, Moorad estuary, 2000-06

***Paphia malabarica*:** *P. malabarica* is exploited from Dharmadom and Valapattinam. It contributes about 0.1 % to the total bivalve production. It is exploited for meat and shell. The total production of *P. malabarica* during

2001 to 2006 was 163 t with an average production of 27 t. The total effort during the period was 7328 with an average effort of 1221. The CPUE was 22 kg. The fishery fluctuated between the years. Maximum landings were recorded in 2002 at 69 t followed by 2004 at 39 t. The effort increased several folds in 2002 and 2004 (Fig. 4). Peak fishing occurs during November to May. The clams are sold at the rate of Rs. 4 /kg shell-on.

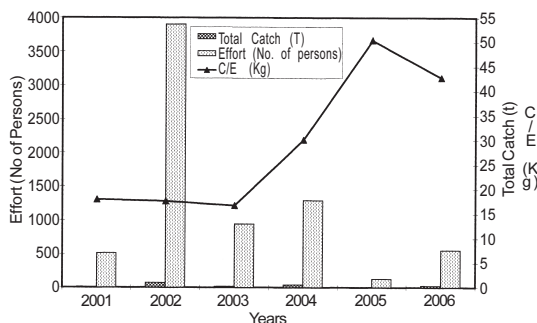


Fig. 4. Production of *Paphia malabarica*, Dharmadom estuary, 2001-06

***Villorita cyprinoides*:** *V. cyprinoides* is exploited from Korapuzha, Moorad, Chaliyar, Mahe, Valapattinam, Padanne and Chandragiri. It contributes about 5% to the total bivalve production. It is exploited for meat and shell. The total production of *V. cyprinoides* during 2004 to 2006 was 1808 t with an average production of 603 t. The total effort during the period was 14664 with an average effort of 4888. The CPUE was 123 kg. Peak fishing occurs during January to May. The clams are sold at the rate of Rs. 1.5/kg shell-on.

***Crassostrea madrasensis*:** *C. madrasensis* beds occur in Korapuzha, Moorad, Chaliyar, Mahe and Dharmadom estuaries. However, exploitation is prevalent only in Dharmadom. In all other estuaries, exploitation is very meager, only to meet the local household requirements. The total production of *C. madrasensis* during 2001 to 2006 was 2153 t, with an average annual production of 359 t. The total effort during the period was 20237 with an average effort of 3373. The CPUE was 106 kg. The fishery fluctuated between the years. Maximum landings were recorded in 2002 at 718 t. The effort increased several folds during the years although production declined over the years (Fig. 5). Peak fishing occurs during January to May. The oyster meat is sold at the rate of Rs. 50 /kg.

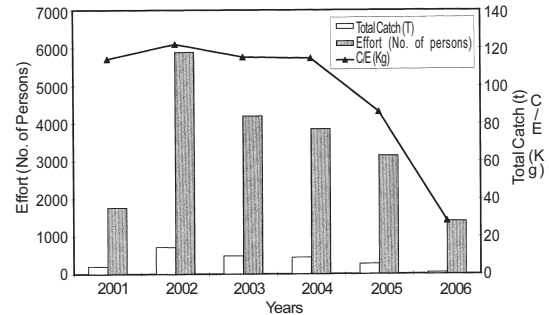


Fig. 5. Production of *Crassostrea madrasensis*, Dharmadom estuary, 2001-06

The exploitation of clam and oyster resources form a source of subsistence level livelihood option for the local pickers. No management practices are in vogue. Several factors affect the spat fall and this contributes to the seasonality of the bivalve fishery.

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