

# समुद्री मात्स्थिकी सूचना सेवा MARINE FISHERIES INFORMATION SERVICE

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केन्द्रीय समुद्री मात्स्यिकी CENTRAL MARINE FISHERIES अनुसंधान संस्थान RESEARCH INSTITUTE कोचिन, भारत COCHIN, INDIA

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#### 'THOORIVALA' AND ITS MULTI USE\*

It is not uncommon that a particular fishing gear is used for more than one type of fishing. Here the three ways of operation of boat-seine 'Thoorivalai' prevailing particularly along Tanjore coast of Tamil Nadu are described. Though it looks like 'Thattumadi' of west coast, it does not have cod end and is dragged atleast 20-25 m during operation. Figures 1 & 2 represent a model boat seine.

### Type of operation - I

The unit of operation consists of two catamarans, one big and the other small and the 'thoorivalai'. The big catamaran is made of four or five pieces of logs and operated by three or four persons. The small catamaran is made of three pieces and operated by two persons. The unit (Fig. 1) is usually operated against current at a distance of 1 to 5 km from the cost and at a depth of 10 to 50 m. This net is used for catching ribbon fish, prawns, *Acetes*, crab, chank—etc. during October, November and December.

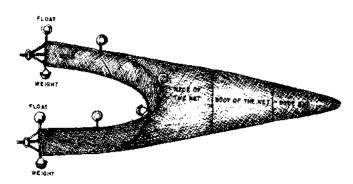


Fig. 1. 'Thoori valai' (boat seine) ordinary type.

#### Type of operation - II

Here the net (Fig. 2) is slightly modified from the net used for the above type of operation. The bottom of the net is fitted with an additional net in the front. The additional net is mainly used to drive the fish above. It can be detached after operation. Apart from the net, five 'Kambis' are also used in the operation. 'Kambi' is a rope made of coir or nylon (diameter 2 cm) having length considerbaly longer than the required depth. Coconut leaves are tied to the rope at an interval of 4 m. Floats and anchors are also used along with the rope. All the 5 'Kambis' are anchored at a depth of 20

- 25 m in an area of 1 km² with a rope of 30 - 35 m long and a stone weighing 15 kg (locally called 'Cheeny'). Two such anchors are used. Sometimes a 'Pari', a cage of dried palm (or) coconut leaves containing blocks of red mud is also used as anchors. When it is inside the water, it slightly dissolves and spreads outside thereby luring the fish for feeding. Sixteen numbers of floats of medium size are used for the net operation. The fishing crafts for the operation are two big catamarans with five persons each and one small catamaran with three persons.

The fishermen anchor the 'Kambis' into the sea at the required depth during the previous day. Next day at about 0600 hrs they set forth into the sea with the three catamarans. The small catamaran, called 'Kambi maram' or 'Mulukku maram' is operated by three persons out of which two are divers. By seeing bright blue colour of the water the divers, by remaining in the catamaran itself, examine one of the 'Kambis' for the occurrence of school of fishes around the coconut leaves. Normally, black pomfrets congregate around the 'Kambi' either to feed on the dirt found on the coconut leaves or for shelter. As soon as the school is noticed the men near 'Kambi maram' give signal by waving their hands to the other two big catamarans to operate the 'thoori valai'. Then the net is operated in the direction opposite to current. Since the 'Kambis' and coconut leaves are put in the midwater the net also is operated in the midwater by dragging. When the net comes nearer to the 'Kambi' the divers dive into the sea and guide the fishes to the cod end of the net. This job requires diver's expertise. As the fishes enter into the net the opening of the additional net fitting is constricted and drawn above so that the fishes cannot

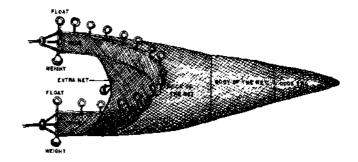


Fig. 2. 'Thoori valai' (boat seine) fitted with extra net.

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escape. The same process of operation will be repeated for hauling the fishes found around the remaining 4 'Kambis' also.

This method is prevalent in the fishing villages of Thoduvai, Thirumullai Vasal etc. It is operated during March, April and May.

## Type of operation - III

During certain seasons, the fishermen use the 'Thoorivalai' as shore-seine by operating it in the surf-beaten area of about 500 m from the beach. Additional net is not used here. During this operation they fish 'Kirachi fish', a miscellaneous variety containing Cynoglossus, rays, prawns, sciaenids, Upeneus, Gerres,

Ilisha, Dussumieria, Caranx, Arius, Apogon etc. During this fishery season the colour of the sea water was-slightly cold and mixed with alluvial soil. The fishes will be seen moving in a lethargic mood and floating in a fainted condition. Sometimes ladies and children are seen scooping the fishes by using 'Katcha valai' in the nearshore water.

Using the 'Thoorivalai' as shore-seine for this type of operation seems to be profitable as the man power used is less and catch landed is high. They get a large quantity of fish with a minimum of 600 kg to a maximum of 800 kg. The fishermen using this type of fishing at Kadathukkuppam (Tanjore Dt.) got a maximum of 700 kg fish by putting 9 hauls and engaging 10 persons a unit during July, 1988.