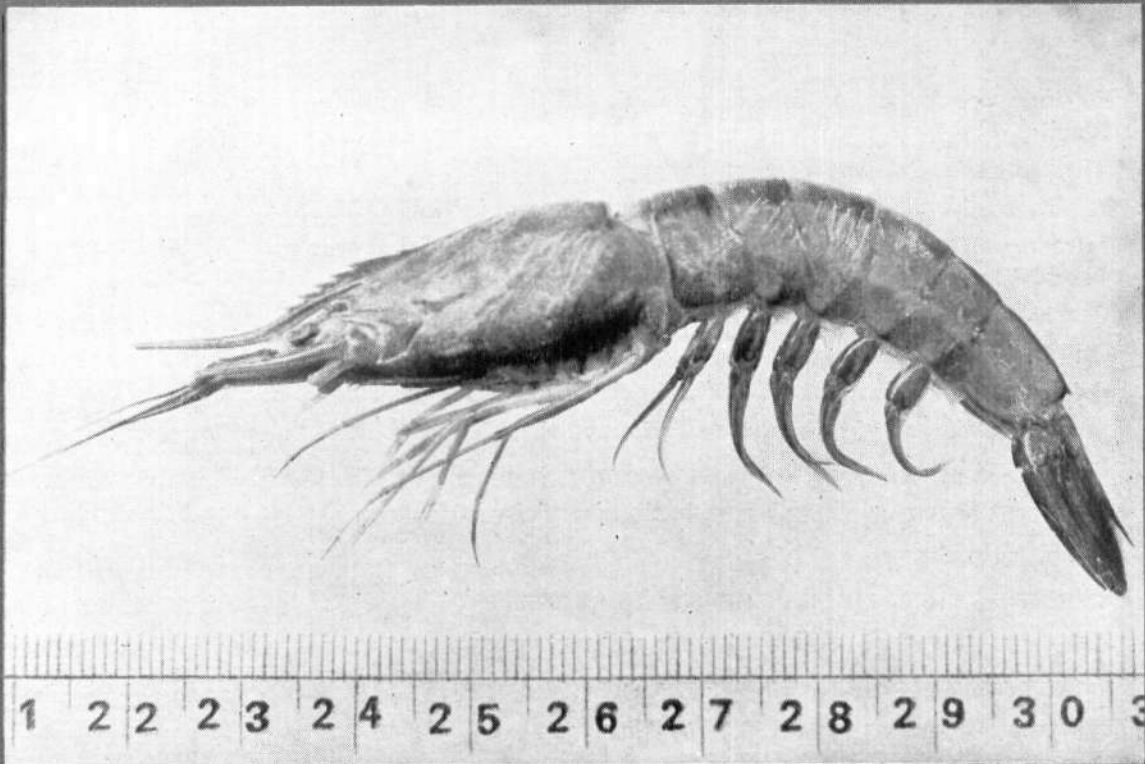




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## A NOTE ON THE SUBSISTENCE FISHERY OF PERIASAMIPURAM IN GULF OF MANNAR\*

When stupendous developments have taken place in the marine fisheries sector in Tamil Nadu especially the mechanisation of fishing vessels, there are a few villages near Vembar on the northern coast from Tuticorin where fishing is being carried out without the assistance of craft. The survey of Periasamipuram, one of the fishing villages has revealed that there are about 250 families in the village, among which 41 are actively engaged in the fishing activity.

**Gears used:** Three types of nets a) *Nachchuvallai*, b) *Viduvallai* and c) *Sippivallai* are being employed for fishing. *Nachchuvallai* (Fig. 1) is a type of drift gill net and there are 4 types with different sizes. One is with a mesh size of 85 mm. The head rope measures 93.6 m in length and thickness of the rope is 2 mm. The foot rope also measure 93.6 m and the thickness is 3 mm. The height of the net is 2.25 m with 27 meshes across. The head rope is fabricated with bamboo floats (11 cm in length, 1.5 cm width) numbering 240 whereas the foot



Fig. 1. The four types of 'Nachuvallai' being dried after fishing operation.

rope is devoid of any weights. The net is fabricated with 0.75 mm thick nylon yarns and 3 kg of yarn is used for fabricating the net.

The 2nd type of *Nachchuvallai* (Fig. 1) has a head rope measuring 78.0 m with mesh size of 50 mm. The height of the net is 2.5 m with 50 meshes across. Each net is fabricated from 1.75 kg of 0.5 mm thick nylon yarn. The 3rd type of *Nachchuvallai* (Fig. 1) is similar to 2nd type, but it measures 75 m in length and 2.25 m in height and the mesh size is 45 mm. The 4th type of

*Nachchuvallai* (Fig. 1) measures 123.5 m in length and 2.5 m in height with 25 meshes of 100 mm size vertically. Thickness of the nylon yarn is 0.75 mm. Each net requires 3 kg of yarns.

The *Viduvallai* (Fig. 2) is a baggy type of shore seine with head rope 38.5 m loaded with 100 synthetic floats and foot rope 33.25 m. The height of the net is 10.2 m which is at equidistance and the two folded ends are stitched together. The head rope is 6 mm in thickness made of HDPE and the foot rope is also 6mm made of cotton. The mesh size is uniformly 25 mm. Each net is made up of 5 kg nylon webbing.

The *Sippivallai* (Fig. 3) has a head rope of 49 m in length with 150 synthetic floats and a height of 10 m. It is made up of 25 mm nylon webbing which costs Rs. 210 per kg and 7 kgs of webbing is used for fabricating one net. The head rope is 4 mm in thickness of HDPE and cotton foot rope of 6 mm in thickness. Each net costs Rs. 1,900.

**Fishing operation:** Each fisherman carries on an average 6 nets of different types of *Nachchuvallai* to the shore. Everyday the fishermen leave the village by 0230 hrs in early morning and reach the shore by 0300 hrs carrying nets on their head (Fig. 4). At the seashore they carry the nets one by one on the shoulder and swim for a distance of 200 m beyond the surf area

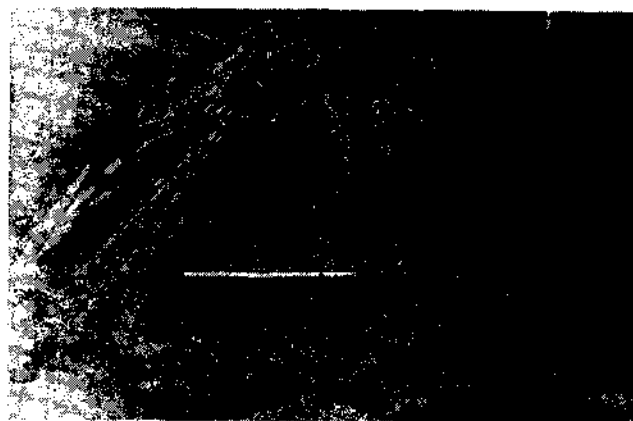


Fig. 2. 'Viduvallai', a type of baggy shore seine used at Periasamipuram.

and releases the net. It takes nearly 45 minutes to release all the nets in the fishing ground. The nets are kept under constant vigilance to prevent unforeseen loss due to unfavourable water current and loss due to run over by the mechanised boats. Unusual catches

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of large fishes are removed from the nets and brought ashore. Around 0600 hrs the nets are hauled up to the shore and the catch is removed (Figs. 5 and 6) and taken to the village (Fig. 7). The middle man procures the catches for sale in the nearby markets in Vilathikulam, Vembar and Sayalkudi. Almost all the catch is sold in fresh condition.

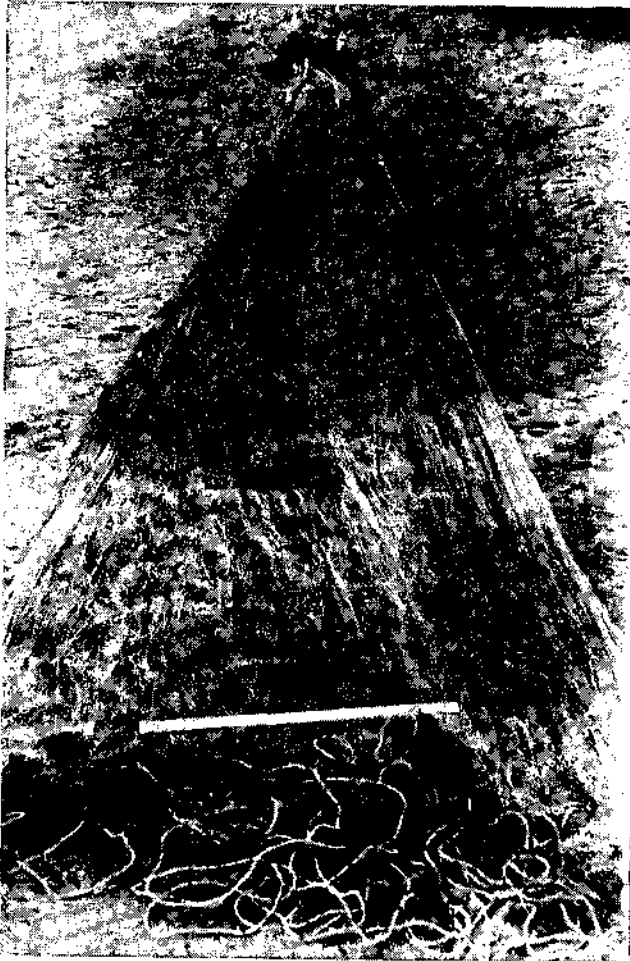


Fig. 3. 'Sippivalai', a type of gill net employed for catching small fishes.

**Species composition:** The catch is constituted mainly by *Chorinemus* spp., *Caranx* spp., *Thrissocles*, *Lactarius lactarius*, sciaenids, mullets, *Chirocentrus* spp., *Sphyraena obtusata*, *Hilsa keeli*, polynemids, *Lates calcarifer*, *Scoliodon laticaudus* and cat fish. On an average 25 to 30 tonnes of fishes of the above mentioned species are caught in a year by the fishermen of Periasamipuram.

**Investment and earnings:** In the villages there are only 41 persons in the age group of 25-55 who possess fishing gears and have fishing experience of 7-25 years. Each person has 4-6 *Nachchuvai*. Five of them have



Fig. 4. A fisherman carries nets for operation.

one *Sippivalai* each and five of them possess one *Viduvai* each. Thus there are 210 *Nachchuvai*, 5 *Viduvai* and 5 *Sippivalai* available in the village. The total investment on these gears is Rs. 1,05,000 for *Nachchuvai*, Rs. 6,750 for *Viduvai* and Rs. 9,500 for *Sippivalai* which add up to a total of Rs. 1,21,250. The sale proceeds of 25 tonnes of fish in a gear may fetch about Rs. 1,25,000 @ Rs. 5 per kg of fish irrespective of the quality of fish. Though the pay back period roughly works out to 0.97 year, the economy of the fishermen does not appear to be very bright for the following reasons as stated by them. a) As the nets are operated just beyond the surf beaten area, the damage for the nets due to wear and tear is high. b) Often the mechanised *vallams* (Tuticoin type boats) which cross the shallow water run across



Fig. 5. The catch is being removed from the net.

the net resulting in heavy damage of the nets. Sometimes parts of the nets cut by the propeller are lost in the current, thus causing heavy financial loss for the fishermen. Though the fishermen light torches on the shore to indicate the presence of nets in the near shore

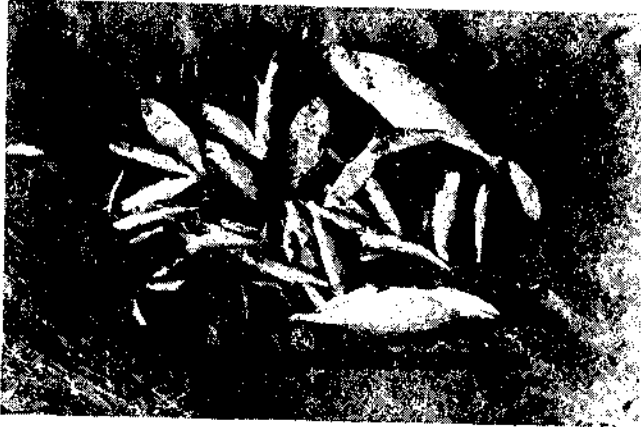


Fig. 6. A part of the catch made with 'Nachuvalai'.

area and also repeatedly plead in the fishermen Panchayats at Vembar, Sippikulam and Keelavaippar, so far there is no remedy for this problem. The condition of the fishermen is that they are not able to get any financial assistance from the Vembar Fishermen Society where all of them are members. So, they plead for a separate fishermen society for the three villages *i.e.*, Periasamipuram, Muthiahpuram and Pachchैया-



Fig. 7. A fisherman returns to village with nets and catch.

puram so that they will be able to obtain financial assistance from the Government for the purchase of *vallams* and gears which will definitely improve their economic conditions. Some action has been initiated to establish a co-operative society at Periasamipuram through the Assistant Director of Fisheries (Regional) Tuticorin with the assistance of the authors.

