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In the recent past several fishing methods have been modified in view of improving catch returns and targeting selected resources showing improvement in indigenous learning. Over decades, fishermen learnt that catfishes migrate enmasse to shallower grounds for breeding and feeding in the early stages of its life history. Experience has taught the fishermen how to identify these movements from a distance by observing the sea surface. According to the fishermen, areas of school habitation will be abnormally calm on the surface, the water will be turbid and a large number of big bubbles will be continuously surfacing. These characteristics can be observed for a cir-

cumference of approximately 200-500 m diameter.

These changes are seen mostly during periods of low temperature in December and January. The catfish, *Tachysurus dussumieri* shows maximum aggregating behaviour along this coast and is predominantly seen in the fishing ground off Madhavpur. Earlier multi-filament, large-meshed bottom set gill nets (Jaada jaal : 140-180 mm) were used to catch this fish. Several pieces were tied together and the bottom line was made heavy with stone sinkers. The width of these nets ranged from 5-6 m. These nets used to land approximately 50-100 kg of catfishes per

haul. Realising the potential of these grounds, fishermen modified these nets into circulating wall nets (Chakkar vaada jaal). The width of the nets was increased to 24 m. The weight of the stone sinkers were also increased to ensure proper stretching of the nets to the ground (7-8 kg per piece). The depth of operation varies at different landing centres: 20-22 m at Navibander, 24-25m at Madhavpur and 25-26m at Mangrolbara. While 40-50 pieces of Jaada jaal nets were used earlier per boat, only 2-3 pieces are used now. The whole net is used to encircle the school area before being towed in. The crew strength (4-5 men) is more in these operations. The fishing general takes place between 9.00 a.m. and 1.30 p.m.

The nets are fabricated @ Rs. 200/- per kg and each set weighs about 60-80 kg, costing about Rs.12000/- to Rs.16000/-. At Madhavpur, the fishermen use one set of these nets (50 pieces per set) at a time. At other centres like Mangrolbara and Navibander, 2-3 sets are used at a time. The average catch of this resource by motorized OBM boats during this short period of aggregation was approximately 200-500 kg at Madhavpur, 500-

1000 kg at Mangolbara, 300-1500 kg at Navibander in the year 2001. In December 2001, at Madhavpur alone approximately 170 t of *Arius* spp., was landed in 5 days. This was sold at Rs.12/- per kg. This price has now gone upto Rs.15/- per kg.

The fishermen believe that these fishes aggregate for breeding/spawning, selecting a cold and hard habitat, and tend to remain there for about 5-7 days, as during this period they are generally weak and less active. This makes them highly vulnerable for capture. The weight ranged from 2-7 kg/fish. The size groups at Navibander were comparatively smaller. This fishing gear is taking the shape of smaller version of the purse seine. From the biological point of view this will have a devastating effect on the resource as the movement of the fishes for breeding/feeding along this coast seems to be suicidal. The fishermen too need to realize the need for checking the exploitation of the breeding stock so as to conserve the resource.

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