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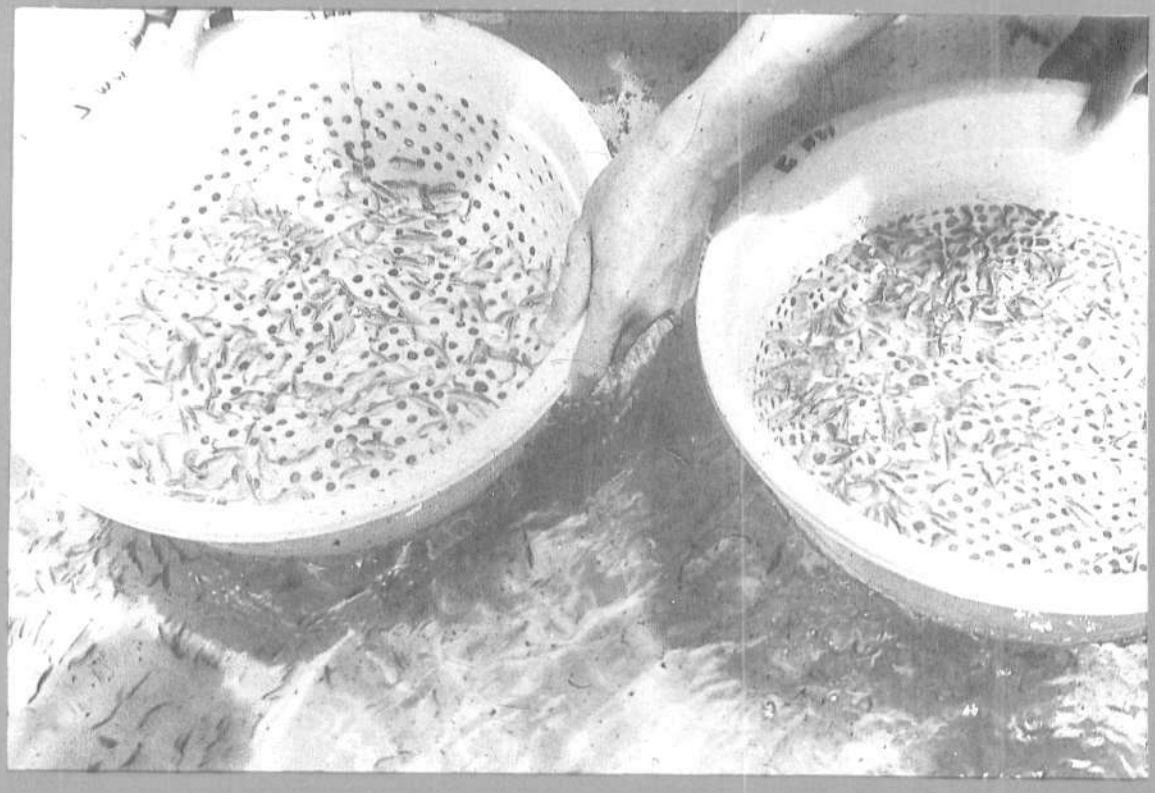

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भारतीय कृषि अनुसंधान परिषद
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DYNAMITE FISHING IN THE CHALIYAR RIVER, NORTH KERALA*

Dynamite fishing is known from all over the world and is prohibited by almost all the countries. It is banned in Kerala by the Fisheries Act IV section 4 (1), 1897 and is considered as an offence punishable with imprisonment for 2 months or fine of Rs. 200/-. In the countries like Philippines, the penalty for the offence is imprisonment for 20 years. The penalty is based on the fact that the method of fishing is dangerous to the fishermen and harmful to the aquatic life. It was further observed that many fishes sink to the bottom due to the damage caused to their air bladder and other vital organs by the explosion. Fishes are very often stupefied by the explosion for a short time only to die some time later. In spite of the ban, dynamite fishing is carried out stealthly due to the economical gains. But very little information is available in the literature regarding this method of fishing. In the present report the dynamite fishing prevelant in River Chaliyar is given.

The dynamites (sticks) used for the fishing are those employed in the quarries for blasting the rocks. They measure 8 cm in length and 3 cm in diameter (Fig. 1). A detonator (aluminium cap) of length 38 mm and 7 mm in diameter containing the explosives is embedded in the centre of the stick (Fig. 2). The stick is wrapped with a wax paper. A fuse rod is inserted into the detonator which when ignited will carry the spark to the detonator resulting in the explosion. The length of the fuse rod varies depending on the time desired for the explosion. The fuse rod will be short if the explosion is intended immediately and is longer if delayed explosion is required. When the shoals of fishes are sighted near on the surface, a short fuse rod is used and longer fuse rods are used when the shoals are seen at a distance (Fig. 3). The man who ignites the fuse smokes and keeps himself alert with a lighted cigar or beedi. When the shoal of fishes is sighted the fuse rod is lit by the cigar or beedi and thrown from the boat. The dynamite explodes violently splashing the water more than 10 metres high (Fig. 4). Soon after the explosion the dead fishes can be seen floating (Fig. 5) and the fishermen jump into the water to collect them.

Fishes like *Mugil* spp, *Sillago sihama*, *Gerres* sp., *Hemirhamphus* spp., cat fishes, *Ambassis nana* and juveniles of other fishes are usually killed. As the dynamites are used only when large shoals are sighted, catches sometimes range from 50 to 200 kg per blast depending on the shoal.

The fishing is carried out in a dug-out canoe using oars. Two or three fishermen usually go for fishing. Moon lit nights are usually selected for the operation. Often the dynamites are thrown from the banks of the river also. The dynamite fishery is resorted to during the summer months of March to May when the water level in th river is low and the sea fishes migrate into the river due to the increase in the salinity. The dynamites are available locally as they are used for the quarries. Each stick may cost about Rs. 5 to 7.

One of the serious hazards of the dynamite fishing is the physcial injury it may cause to the fishermen. Fishermen sustain grievious injuries (Fig. 7) in the arm if the dynamite explodes before throwing it into the water. It can be even fatal if the dynamite explodes while igniting the fuse. The injured persons normally do not get themselves admitted in the Govt. Hospitals fearing legal action. They get treated in local private hospitals reporting the injuries as fire accidents. Hence dynamite fishing accidents are not recorded.

The dynamite fishing causes great harm to the ecology of the aquatic organisms of the river, besides destroying all the aquatic life in the periphery of 15 to 20 metres from the site of the blast. The explosions are so powerful that large dents are made on the river bed. Topography of the river is also affected. The banks of the river caves in resulting in narrowing of the river causing problems to navigation (Fig. 8). Silting of the river also takes place.

The dynamite fishing is a socio-economic problem. The fishermen who resort to the fishing are well aware of the dangers involved. But they opt for the fishing due to the eocnomic gains and as it is one of the ways to make easy money. As the fishing is carried out during nights in the interior areas with connivance of local people it is difficult for the police to monitor and check.

The possible solution to the problem is to persuade the fishermen to desist from using the dynamites for fishing and offering alternate employment.

* Prepared by : R. S. Lal Mohan, Calicut Research Centre of CMFRI, Calicut.

Fig. 1 Dynamite ('Thotta') used for fishing.

Fig. 2. Aluminum cap used in the dynamite.

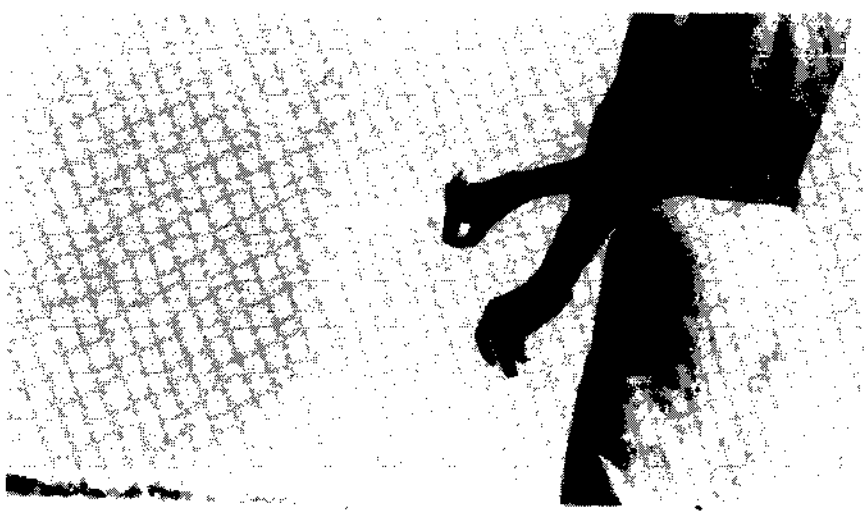

Fig. 3. Dynamite about to be thrown

Fig. 4. Explosion of a dynamite in water.

Fig.5. Fishes floating after the explosion.

Fig. 6. Part of the catch: *Sillago* sp; *Chorenemus* juveniles.

Fig. 7. Forearm lost due to dynamite fishing accident when the dynamite exploded before throwing it.

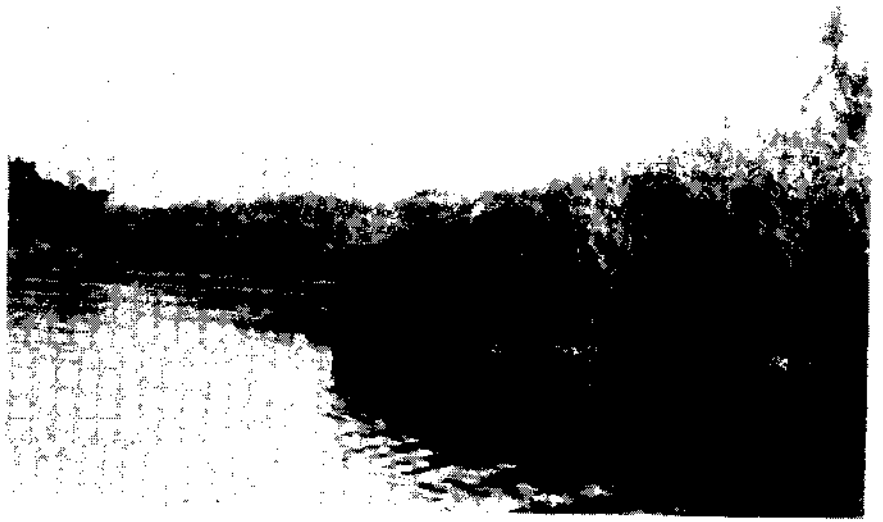

Fig. 8. Caved in banks of Chaliyar river due to dynamite fishing.