

Material : Two specimens, 935 mm, Female ; Gulf of Mannar (08° 50'N, 79° 05'E), 220 fathoms, Trawl net ; 22-iii-70 CMFRI. F. 199/633a and b.

Economic importance : Though the deep sea sharks are not favourably considered in the market, they are bound to become popular, as in other countries, when people become familiar with it. Silas (1969) found that vitamin A potency of liver of the species is very low compared to other commercially important sharks. According to Silas (op. cit.) percentage oil in liver varies from 69.4-72.5, and vitamin A potency of liver oil from 90.0-103.0 (usp./gm of oil).

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15. A NOTE ON THE LOCATION OF BREEDING PITS OF
MYSTUS SEENGHALA (SYKES) IN JAMONIA TANK
NEAR BHOPAL

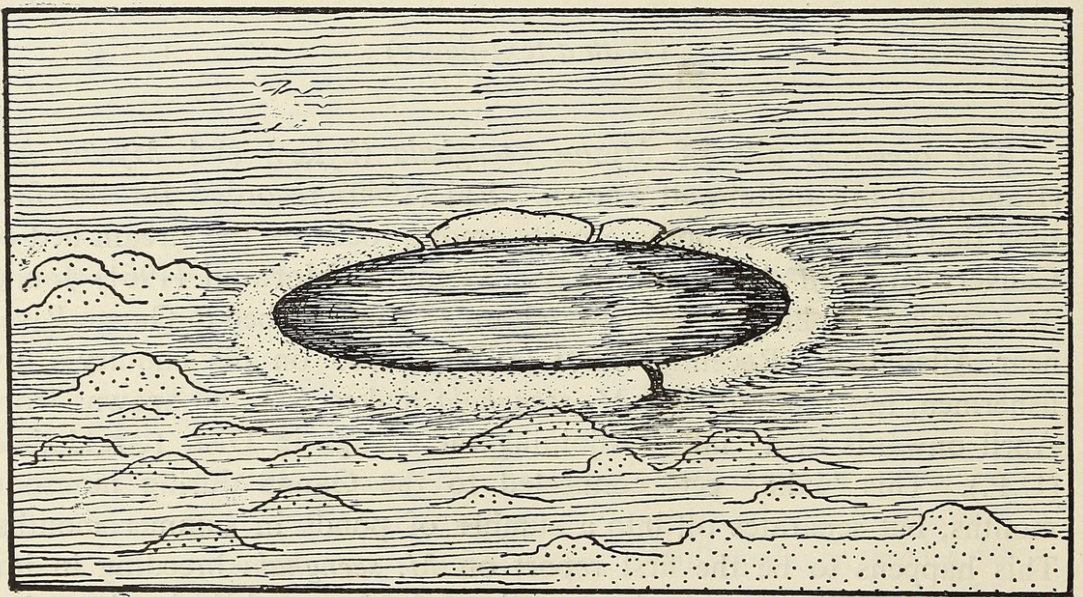
(With a text-figure)

The breeding pits of *Mystus seenghala* (Sykes) and *Mystus aor* (Hamilton) are quite well known. Raj (1940) recorded for the first time that these species prepare nests among rocks on the stream bed of Cauvery River in April and May. Saigal & Motwani (1961) found *M. seenghala* making nests in March on soft muddy bed in Ganga River near Allahabad. Recently Bhatt (1970), based on his enquiry from fishermen, has inferred that *M. seenghala* makes pits and spawns from April onwards in a 'lake' adjoining the Ganga in Dist. Farukhabad (U.P.). This 'lake' gets connected to the Ganga during monsoon months, but separates off into a number of ponds in summer months. This happens to be the first report on *M. seenghala* breeding in impounded water. Though the breeding of *M. seenghala* in rivers has been reported by other workers also, Khan (1934), Chacko & Kuriyan

(1948), etc., there is no reference available on breeding of *M. seenghala* in tanks except Bhatt's report (loc. cit). Therefore, the breeding of *M. seenghala* in the Jamonia tank near Bhopal has been described in this note.

The Jamonia tank is a perennial irrigation tank located in Sehore district about 40 kilometres from Bhopal, and has a recorded water area of 420 hectares. This tank was constructed by erecting a wall across the Jamonia nala, which, along with other small nalas draining the catchment area, brings water to this tank during the monsoon. The water from the tank flows down through the waste weir back to the old course of Jamonia nala, which later on joins River Parvati—a tributary of River Chambal of the Gangetic system. *Bundh* type breeding of major carps occurs in this tank on a large scale every year during the monsoon and a good number of major carp eggs are collected by the State Government. From November to June, there is not much flow of water from the nalas and during this period an almost dry condition prevails in this area.

This tank also has a good population of *Mystus seenghala* and *Wallago attu*, with the former contributing to a fishery of appreciable magnitude. The availability of both the adults and juveniles of *M. seenghala* in large numbers pointed to the definite possibility of the fish breeding in the tank itself. Therefore, the basin of the tank was surveyed in June, 1966, with a view to gather evidence of the breeding of *M. seenghala*. Due to extreme drought conditions, the water area of the Jamonia tank was reduced to about 1 to 2 hectares only, the maximum depth being only 2 to 3 metres. In the shallow marginal exposed area of the tank, a good many circular saucer-shaped depressions were observed in the mud (Fig.).



Breeding pit of *Mystus seenghala* (Sykes)

The formation of these depressions in the bed of this tank was reported to be an annual feature during summer. The sizable fishery of *M. seenghala* inclusive of its juvenile fishery, absence of *M. aor*, lack of nest building habit in *W. attu* and the previous reports from local fishermen seem to confirm that these depressions are the breeding pits of *M. seenghala*. The diameter of these pits varied from 0.6 to 1.2 m, with the depth ranging from 20 to 45 cm at the centre. The breeding pits observed by Saigal & Motwani (loc. cit.) in the Ganga were sandy depressions in waist deep areas 8-12 m from the shore and measuring about 0.9 to 1.2 m across and 25 to 45 cm deep at the centre.

Some of the isolated breeding pits containing water were also examined carefully, in an attempt to collect young ones from them, but no such collection could be made. But subsequently, a few dead and dried fry of *M. seenghala* (size 3 to 4 cm) were collected from one of the dry pits which tend to prove that these pits were utilised by *M. seenghala* for breeding and nursing the young ones. A few of the adult specimens of both sexes examined were found to be spent, indicating that the breeding was over by June. The knowledge of occurrence of breeding pits of this predatory fish in a tank will be of immense value in keeping its population in check by the destruction or removal of fry from these pits.

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