On rearing of fry obtained by induced breeding of farm reared brooders of Mahaseer tor Putitora at Mahaseer hatchery at Anji, Reasi (J&K State).

- Jan, N.A.
- Dogra, R.K.
- Verma, K.B.

INTRODUCTION

The Mahaseer comprising of six distinct species distributed throughout India depending upon the altitude and other factors has been identified as an endangered species throughout India. Efforts are on at various levels to rehabilitate this well known game fish all over the country.

The J&K State Fisheries Department has been successful in breeding the farm reared, local (Mahaseer) Tor Putitora in one of its exclusive Mahaseer hatchery at Anji (Reasi), District Udhampur of J&k State.

MATERIALS AND METHODS:

Farm reared brooders of Mahaseer (Tor Putitora), initially collected as fingerlings from Anji stream were, reared in running water ponds for 4 years. These brooders after attaining 3-4 years of farm rearing were injected with a single dose of Ovaprim @ 1 ml/kg body weight to the female and 0.5 ml/kg body weight to the male. These were kept in a circular breeding pool with running water system. After 18-19 hours the eggs were fertilized by dry stripping.

The fertilized eggs thus obtained were hatched in floating wooden trays kept in specially designed running water troughs. The eggs hatched out in 72-80 hours at 24-26^{0}C temperature. The young fry/ spawn thus obtained was further reared in specially designed small running water raceways for 45 days. When it attained a length of 30-32 mm by the middle of November.

The fry thus obtained were reared into fingerlings in running water system for three consecutive years i.e., 1999 – 2002 during the course of this investigation.

TEMPERATURE:

The average water temperature in the running water raceways ranges from 5°C to 31°C. During winter i.e., Nov. to Jan., the temperature is 5°C to 15°C and during summer i.e; 15 June to 15 Aug; the temperature ranges between 24°C to 31°C. For rest part of the year the temperature is around 26°C ± 3°C.

WATER MANAGEMENT:

Water from Anji stream is allowed to enter the farm after passing through a desilting tank. The running water raceways were cleaned after every fortnight to remove silt and leftover feed etc. Due care was taken to avoid over handling of fish. A water level of 5ft. was maintained in the tank. In case of heavy floods in the stream the water supply was disconnected.

STOCKING:

Each year the stocking of fry was undertaken in 80x30x5ft running water tanks. As per detail shown in table 1.

TABLE 1.

S.No.	Date of Stocking	No. of Fry. Stocked.	Avg. Length At stocking.	Avg. wt. at Stocking.	Date of Harvested	No. of fry Harvesting	Avg. Length at Harvesting	Avg. Wt. at Harvesting
1.	17.11.1999	1277	31.3mm	5.6 gms.	3.8.2000	1085	82.7mm	11.4 gms.
2.	20.11.2000	1355	31.7mm	5.8 gms	25.7.2001	1160	86.3mm	11.7 gms.
3.	05.11.2001	1866	31.8mm	5.8 gms	16.7.2002	1656	83.0mm	11.7gms.
		4498	31.6mm	5.7 gms		3901	84 mm	11.6 gms
		1498	31.6 mm	5.7 gms		3901	84.00 mm	11.6 gms.

During the course of experiment conducted for three consecutive years a total no. of 4498 fry having average length 31.6mm & average weight 5.7 gm, were stocked and a total no. of 3901 fry having average length 84.0mm and average weight 11.6gm were harvested for a said period of nine months.

FEEDING:

The stocked fry were fed on mustard oil cake and rice bran (1:1) @ 3-5% of total body weight of fry (observed fortnightly) daily in two installments. The feed was soaked in water for 2-3 hours and kept at the corner of tank. In running water system some natural feed from Anji stream is also expected to flow in.

OBSERVATIONS AND RESULTS:

In a period of nine months of rearing of fry into fingerlings at an average temperature of 26°C ± 3°C, a survival of 86.7% was obtained with a growth of 52.4mm length and 5.9 gm weight.

During the course of experiment it was observed that the growth of fry during winters i.e., Nov. to Jan. was minimum (almost negligible).

Present address of Authors:

+ Dr. Jan, N.A.
Commissioner Fisheries
J&K Government.

• R.K. Dogra,
Sr. project Officer,
NFSF, Kathua.

K.B. Verma,
Farm Manager
Mahseer Farm,
Anji, Reasi.

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