

**ORL-B&G-07****Induced Breeding and Rearing of Silver carp *Hypophthalmichthys molitrix* using LHRH-a Hormone**

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The present study was undertaken at Fisheries Development and Training Centre Janakpurdham, Nepal. The present field study was carried out for 4 months from May 2019 to August 2019 to study the physico-chemical parameters, biology of silver carp-Fecundity, gonado-somatic index (GSI), fertility rate, hatching rate, embryonic development and growth of silver carp (fingerlings). Silver carp were spawned successfully in following two successive doses of LHRH-a. Initial dose for female is  $2\mu\text{g}/\text{kg}$  and second dose  $4\mu\text{g}/\text{kg}$ . For a male single dose is given at time of second dose for female  $3\mu\text{g}/\text{kg}$  of the body weight.

Latency period ranged between 8-10 hrs. During the study period the range of different ponds was  $24\text{-}36^{\circ}\text{C}$ , pH of water showed it to be alkaline during the whole study period, Dissolved oxygen were recorded  $5.0\text{-}8.2\text{ mg/L}$ ,  $\text{CO}_2$  were recorded  $13\text{-}17.1\text{ mg/L}$ . The total number of egg spawned ranged from 324,996 to 606800, fertility rate (72.5-92.5%), GSI (16.21-24.44%) and hatching rate (65.21-82.60%).

The development of embryo was noted from three hours onwards. The development of embryo was continued and hatching takes place between 18 to 20 hrs. After five days, hatchlings were transferred in the Nursery ponds, the fry were fed with artificial formulated feed with 35-40% feed regularly. The length and weight of hatchlings were recorded at weekly intervals. Length and weight of fry was noted gradually increasing from first week to fourth week.

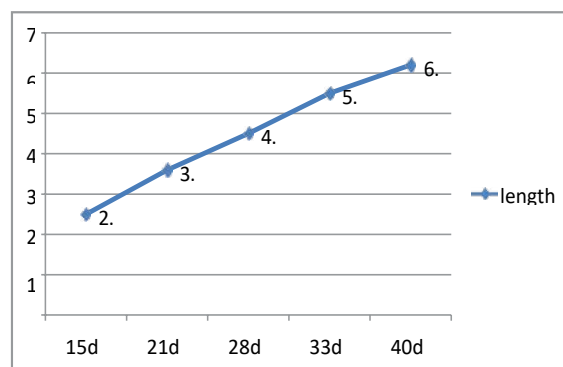


Figure 1: Growth performance (length in cm) in the fry under the influence of commercial feed at regular interval.



Figure 2: Growth check of fishes from fourth day to 40<sup>th</sup> days of hatching (left to right).