
ABSTRACTS OF Ph. D. THESIS

"A STUDY ON THE BIOLOGY OF A FRESHWATER FISH", *Puntius kolus* (SYKES)"

Dr. Shivaji Narayanrao Suryawanshi, Babasaheb Ambedkar Marathwada University, Aurangabad, 1996

Guide & Supervisor: Dr. S.B. Wagh

In the present work on the fish, following aspects have been studied in detail.

1) Classification and sexual dimorphism - The present position of the fish in animal kingdom and differences in two sexes of the fish have been studied, giving synonyms also.

2) The maturity and spawning of the fish was studied with the help of ova diameter measurements, which revealed that minimum size at first maturity. The fish has a prolonged spawning season with spent fishes. Occuring throughout the year.

3) Fecundity of the fish was studied which was found to show a curvilinear relationship with fish length, ovary length and body weight of the fish and a straight line relationship with the ovary weight.

4) The ponderal index was calculated separately for males and females. The 'K' values in both the sexes showed an inflection which was seen to be the minimum size at maturity.

5) Length frequency studies were carried out to determine the age and growth rate of the fish.

6) The length weight relationship when studied, revealed that the length of the fish was exponentially related to the weight of the fish.

7) In the morphometric studies, the various body parts of the fish were measured, to study the relationship between the total length of the fish with other body parts.

8) While studying food and feeding habits of the fish, the occurrence/ numerical method was used to assess the percentage of food consumed in different months of the year. Preference of the food items and intensity of feeding by the fish was recorded by analysing the stomach contents of the fish.

9) Biochemical composition of the muscles, liver and gonads of the fish was determined, on a monthly basis to show fluctuations in the composition.

stronglid infection, poor quality of food consisting mainly of dry peepul leaves and some hepatic damage as reflected from the higher bilirubin values. Fowler (1986) indicated that large oedematous pockets can develop in any of the dependent areas of elephant's body which associated with general debility and stress.

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