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THE REPRODUCTION BIOLOGY OF PRUSSIAN CARP IN TURKEY

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The Prussian carp (*Carassius gibelio*) a member of Cyprinidae, is a benthopelagic, non-migratory, living fresh and brackish water, and omnivore (Dulmaa, 1999) and able to reproduce from unfertilized eggs (gynogenesis). The present study was taken upto investigate the reproduction of the *Carassius gibelio* population in Topcam Dam Lake, south-western Anatolian region of Turkey.

Materials and Methods

Specimens were captured monthly with gill-nets of various mesh sizes (18,22, 25, 28, 35 and 55 mm) between June, 1999 and June, 2000. The caught fish were transported to the laboratory in a 4% formalin solution. After fish samples were brought to the laboratory, the fork length (FL ± 1.0 mm), weight, gonad weight (W±0.1 g) were recorded. Sex was determinated by examination of the gonad tissue either grossly or with the aid of a microscope (Nikolsky, 1963). Scales were used for age determination; for this purpose, 10 or 12 scales were taken between the dorsal fin and lateral line region of the side of the body and read under a binocular microscope. Scales were kept in 4% NaOH solution for 16h and then were washed in distilled water and treated with 70% and 96% ethyl alcohol (Chugunova, 1963).

The spawning period was estimated from the gonad development, direct observation of the gonads and monthly variations in egg diameters of samples (Lagler, 1966). Gonado - Somatic Index (GSI) was calculated from the equation. GSI % = (Wg / Wt). 100; where Wg and Wt are gonad weight and total weight in grams of fish respectively (Lagler, *loc.cit*).

Fecundity was studied by gravimetric method (Bagenal, 1978). The sub-samples of 1 or 4 g according to the size of the eggs were taken from the front, middle and back portions of the ovaries. The number in the sub-samples was multiplied up to the weight of the ovary. The diameter of various size eggs from parts of ovary were measured with object micrometer between January and August.

Sexual maturity was confirmed by noting macroscopically the presence of "yolked eggs" or sperm in the gonads (Nikolsky, *loc. cit*). On the other hand; Fecundity (F) - fork length (FL) and Fecundity - body weight (WT), were calculated with regression analyses. Fecundity was calculated from the equation $\log F = \log a + b \log FL$ or $F = a.FL^b$ $\log F = \log a + b \log WT$ or $F = a.WT^b$ (Nikolsky, 1969);

Results and Discussion

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The age of captured fish ranged from 3-6 years and the 5 years old fish were maximum (68.12%) in the population. The fish population was 98.84% female and 1.16% male.

In this study, the captured fish had attained sexual maturity in their third year. At sexual maturity, the minimum length (FL) and weight (W) were calculated as 23.80 and 350.50 g. Berg (1964) reported the majority attains maturity on the 4th year of life; individual specimens may mature on the 3rd or even the 2nd year.

Assessment of the spawning time season of *C. gibelio* in Topcam Dam Lake was based on the GSI and analysis of seasonal development in mean egg diameter. Ovary development began in November. According to the averages, the highest GSI values were determined in the March (19.897%) and June (21.208%) samples. There was a decrease in the mean GSI values in September, when spawning almost finished and the high temperature of 25.10°C was recorded in water. Spawning occurred between March and August when water temperature was between 13.5 and 29.4°C suggesting that this species is a multiple spawner. Many species of multiple spawning fish have a rhythmic periodicity of reproductive behaviour (McEnvoy and McEnvoy, 1992).

The spawning time of Prussian carp population in Topcam Dam Lake has began much earlier than in the other basins, because of warm climatic factor in southern part of Turkey.

Oocytes in ovaries was observed in all seasons. The mean egg diameter was highest in March (0.955 mm) and in May (0.996 mm), and in June (1.096 mm), while the lowest was measured in August (0.523 mm). Egg diameters increased as fish length, weight and age increased, and larger fish had larger eggs. One of the most important parameters which was used to define the reproductive potential was the variation of egg diameter. The egg diameter may be related to the amount of food that females can metabolize (Nikolsky, 1963).

Fecundity was estimated in 88 females captured. The mean number of eggs ranged from 37823 (August) to 85159 (March). Fish had different egg sizes. Fecundity was highest in populations with the smallest eggs. The number of eggs of *C. gibelio* ranged between 26064 and 149084. The egg production increased as the age increased. Fecundity increased as fish length, weight, gonad weight and age increased. There were significant correlations between fish length (FL), fish weight (WT), and fecundity (F). It was evident that fecundity increased as fish length, weight, age and gonad weight increased. Fecundity was reported to be affected by season and environmental conditions. Difference was also observed between populations of the same species and from year to year (Nikolsky, 1969).

Summary

The reproduction biology of 172 Prussion corp (*Carassius gibelio*) in Topcam Dam Lake, South Western Anatolian region of Turkey from June 1999 to June 2000. There were 98.84% females and 1.16% males. Sexual maturity was noticed by third year of age, Spawning time was within the month of March and August. The fecundity varied from 26064 to 149084 per female. The average egg diameter was between 0.505-0.979 mm. Egg production

increased with the increase in age. Fecundity increased with the increase in fish length, weight, gonad weight and age.

REFERENCES

Bagenal, T., (1978). Methods for Assessment of Fish Production in Freshwaters, Blackwell Scientific Publications, IBP. Handbook No. 3, London, pp. 75 - 102.

Chugunova, N., (1963). Age and Growth Studies in Fish (Translated; Israle Program for Scientific Ltd.), Washington, p. 130.

Dulmaa, A., (1999). Fish and Fisheries in Mongolia. p. 187-236. In T. Petr (ed). Fish and fisheries at higher altitudes: Asia. FAO Fish. Tech. Pap. No. 385. FAO, Rome, p. 304.

Lagler, K.F., (1966)... Freshwater Fishery Biology, W.M.C., Brown Company, Iowa p. 421.

McEnvoy, L.A. and McEnvoy, J., (1992) *J. Fish Biol.*, **41** : 125

Nikolsky, G.V. (1963)... The Ecology of Fishes, Academic Press, London. p. 352.

Nikolsky, G.V. (1969)... Theory of Fish population Dynamics, Otto Science Publishers, Koenigstein, p. 317.

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