

Biochemical Studies of Cestode *Senga sp.* (Dollfus, 1934) from Freshwater fish *Channa striata*(Bloch, 1793) in Nasik District, (M.S.) India

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Abstract

The main source of energy for cestode inhabiting the alimentary track of vertebrates is glucose. Proteins and lipids are also crucial and play important biological role. The present research study deals with biochemical estimation of cestode parasite *Senga sp.* and its host (Normal and infected intestinal tissue of *Channa striata*) in Nasik district. The result shown higher concentration of lipid in parasite than its host.

Keywords: *Channa striata*, *Senga sp.*, Biochemistry, Nasik

INTRODUCTION

Fishes are economically important to human having main source of biomolecules like protein, lipid, and glycogen. Parasitic diseases of fish are very common throughout the world. Parasites affect fish health, growth and survival. Glycogen is the main structural component of tissue as major energy reserve and as phosphorylated intermediate. Glycogen is the main reserve polysaccharides in cestode(John barret.,1981). *Senga sp.* have low Protein and glycogen content as compare to its host (R B Gaikwad et al, 2018) Glucose is the main source of energy for cestode inhabiting intestine of the vertebrate (Deep S Misra et al 1991). Cestode posses stored carbohydrate metabolism, with enormous amount of stored carbohydrates (Daughtery 1966, Fairbairn, Werthein, Harpuret, Schiller 1961, Markov 1939 and Read and Rothman, 1957b). The intention of the present research is to estimate biochemical component of fish and its parasites.

MATERIALS AND METHODS

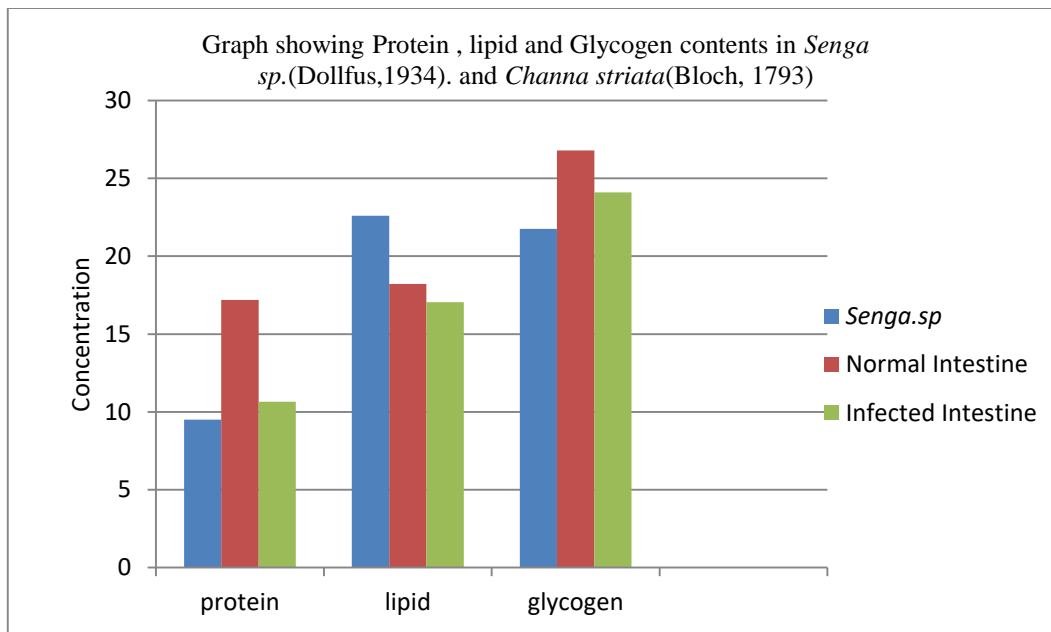
The parasites were collected from the intestine of *Channa striata* and cleaned in distilled water. Collected parasites were dried on blotting paper and kept it to remove excess of water and transferred to watch glass for sensitive balance weighed. After 40-50 C for 24hrs, the dry weight was also taken. The estimation of protein content in the parasite was carried out by Lowry's method (1951), the glycogen estimation were carried out by Kemp et.al (1954) and lipid estimation by floch et al (1957).

OBSERVATION

Biochemical content in the intestine of *Channa striata* and its parasite (*Senga sp.*)

Table: Biochemical estimation of *Senga sp.* from *C striata*.

Sr.	Tissue	Protein	Lipid	Glycogen
1	Normal intestine	17.20	18.22	26.80
2	Infected Intestine	10.65	17.05	24.10
3	<i>Senga sp.</i>	09.50	22.60	21.75



RESULT AND DISCUSSION

The values of biochemical estimation of *senga sp.* and *Channa striata* shown in the table. According to these values it shows that the amount of protein present in the host intestine (Normal) is 17.20 mg/gm (Infected 10.65 gm/mg) of the wet weight of tissue and in parasites 09.50 mg/gm wet weight of tissue. Glycogen content in *Senga sp.* showed 21.75 mg/100 ml of solution and infected intestine shows 24.10 mg/100 ml of solution (Normal intestine 26.80 mg/100 ml of solution). Hence it can be concluded that *Senga sp.* have low protein and glycogen content as compare to its host. Lipid content in the *Senga sp.* showed 22.60 mg/gm while in the Normal intestine of host 18.22 mg/gm (Infested intestine 17.05 mg/gm). According to the result it is concluded that higher content of lipid in *Senga sp.* than its host.

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