

The endeavour of the study shows that protein is the dominant bio-chemical component in muscle and liver of Indian major carps. More protein values having observed in winter and gradually decreases in summer and rain when mature fishes are in maximum numbers. The protein values irrespective to their traits, size and weight of all the three studied species and also maturity stages are inversely correlated with moisture contents. Liver contains more lipid than the muscle and liver of *C.catla* contains highest amount of lipid than other two species. Towards maturity, the lipid declines in fish muscle and liver. This may be due to mobility of body lipid in this phase. The percentage reduction is more in female. Low level of lipid is recorded in rainy season which is also found in reproductive season. The feeding intensity of fish depends on size, season, food availability and maturity stage.

Lipid content of the body remains low in young fish and fast fat accumulation is found in mature adult fish. The average biological parameter, condition factor (K), gastro-somatic index (GaSI), hepatosomatic index (HSI) and gonadosomatic index (GSI) of all carps under study were recorded as 2.18 ± 0.04 , 0.53 ± 0.075 , 1.11 ± 0.08 and 0.99 ± 0.33 respectively. Analysis of correlation matrix pointed to the fact that body weight was significantly and positively correlated with all the other biological parameters such as total length, standard length, heart weight, stomach length, stomach weight, liver weight, gonad weight and kidney weight with r value varying between 0.301(gonad weight) to 0.942(total length) at $p \leq 0.01$. The whole research study shows that the seasonal variations of limnological parameters have definite positive relations with allometric values as well as biochemical values.