



Preliminary studies on the length weight relationship and condition factor of *Schizothorax labiatus* (McClelland, 1842) from Vishav stream of South Kashmir, India

Mohammad Yasir Arafat* , Yahya Bakhtiyar

P.G. Department of Zoology, University of Kashmir, Hazratbal Srinagar, 190006

ABSTRACT

Among the Schizothoracine family of class pisces commonly known as snow trouts, the *Schizothorax labiatus* is economically a valuable food fish possessing a wide market demand. The length-weight relationship, morphometrics and condition factor (K) in *S. labiatus* were investigated on the samples collected during late autumn and winter months from Vishav stream at different sites. Analysis of 41 fish specimen which ranged in length from 15.2cm to 36cm and 29g to 364.3g in weight revealed the range in coefficient of variation in morphometric measurements from 14.12% to 24.51%, being maximum (24.51%) in anal fin length (AL) and minimum (14.12%) in case of eye diameter (ED). Correlation coefficient 'r' between different morphometric parameters show significant variation being maximum between total length (TL) and standard length (SL) with value of 'r=1' and the minimum degree of correlation was seen between head length (HL) and inter orbital length (IOL) with minimum value of 'r=0.82'. Regarding the length-weight relationship, the coefficient of correlation 'r' obtained for males, females and pooled were 0.989, 0.938 and 0.948 respectively, indicating a positive correlation between length and weight. The regression coefficient 'b' separately obtained for male, female and for pooled were 3.1701, 2.7867 and 3.0098 respectively, indicating the positive allometric growth pattern in case of males as compared to females during these months. The paper also throws light on condition factor of the fish of both the sexes during these months which showed a significant decrease from late autumn to winter months, which can be attributed to changing water quality parameters, low feeding intensity and spawning stress in the fish.

Keywords: *Condition factor (K), morphometrics, Schizothorax, length weight, condition factor, spawning stress, Vishav stream.*