



COMPARITIVE STUDY OF LENGTH WEIGHT RELATIONSHIP OF LAMELLIDENS MARGINALIS AND LAMELLIDENS CORRIANUS

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Abstract

Comparative study of length - weight relationship of fresh water mussels, *Lamellidens marginalis* and *Lamellidens corrianus* is the important aspects of biological study. The length and weight is having mathematical relationship in between them. If one factor is known the other may be estimated from it and vice versa. For the study 20 specimen of each species were collected from River Godavari from Nanded region, and kept in laboratory for acclimatization. length and weight relationship of both the species was estimated by using Cube-Law. *Lamellidens marginalis* showed Relationship between length-weight and it was $W = 1.3899L^{0.1644}$ *Lamellidens corrianus* showed Relationship between length-weight was $W = 1.2564L^{0.3103}$ both the specimen follows the Cube- Law.

Introduction

Length weight is the study of consequences of size and shape. study of Length and weight relationship is relationship between two different parameters of same organism in specific period. Comparative study help to estimate length weight relationship in two different species with same genus. The information on allometry and condition index of freshwater bivalve from India is meager (Desai & Borkar 1989). However, a few reports are available on the various aspects of biology of freshwater mussels from India (Nagabhushanam & Lomte 1971; Narian 1972; Nagabhushanam & Lohgaonker 1978; Lomte & Jadhav 1980 and Moorthy et al. 1983). This clear that as age increases the weight of the mussel also increases. However, some individuals of the same age showed different weight and length these differences may be due to physiological condition of mussels and variation in environmental parameters (Seed 1976; Thippeswamy & Joseph 1988).

Matereal And Methods

Lamellidens marginalis and *Lamellidens corrianus* were collected from river Godavari district Nanded Maharashtra. After collection they were acclimatizing in laboratory condition for 24 hr. after acclimatization size wise grouping was done and each mussel is tagged with oil paint marker. After tagging 20 specimens of *Lamellidens marginalis* and 20 specimens of *Lamellidens corrianus* were selected for the study. Monthly Tagged mussels were used to see changes in length weight of mussels. The average length, weight was

calculated on the basis of tag. Relationship of length- weight was determined by following cub law (Le-Cren 1951).).

Result & Discussion

20 specimens of each species such as *Lamellidens marginalis* and *Lamellidens corrianus* were selected for the study. Monthly changes in length, weight recorded. The average length and weight was calculated on the basis of tag numbers and according to size group. Relationship of length- weight was determined by following cub law (Le-Cren 1951).). Six month data is regularly collected because both mussels were survived six month. Monthly data was recorded. *Lamellidens marginalis* showed Relationship between length-weight and it was $W = 1.3899L^{0.1644}$ *Lamellidens corrianus* showed Relationship between length-weight was $W = 1.2564L^{0.3103}$.

Discussion

Chart 1 gives the clear idea about the comparative values of Length of *Lamellidens marginalis* and *Lamellidens corrianus*. From chart 1 group 6 to 10 and 11 to 15 shows maximum length in *Lamellidens marginalis* and group 1 to 5 and 16 to 20 maximum length are in *Lamellidens corrianus*. Chart 2 gives clear idea about comparative value of weight of *Lamellidens marginalis* and *Lamellidens corrianus*, and it shows weight was maximum in *Lamellidens corrianus* throughout the study period as compared with *Lamellidens marginalis*. *Lamellidens marginalis* showed relationship between length-weight was $W = 1.3899L^{0.1644}$ and *Lamellidens corrianus*

showed length-weight relation was $W = 1.2564L^{0.3103}$. This result state that Length

weight relationship of *Lamellidens marginalis* and *Lamellidens corrianus* follows cub law.

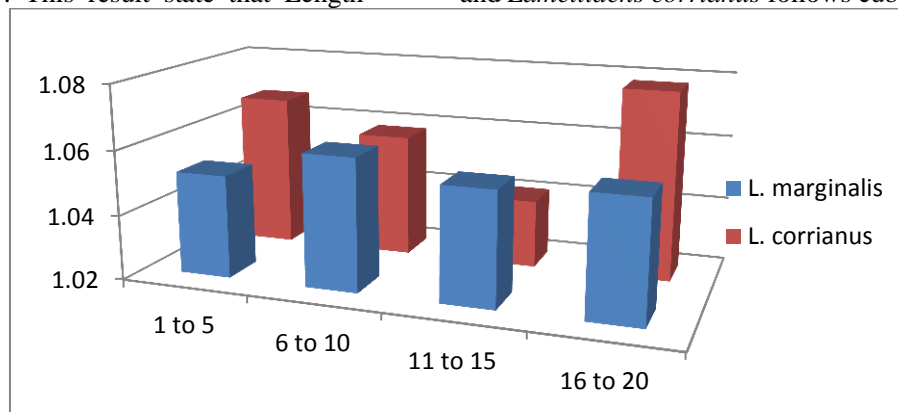


Chart 1 shows comparative values of Length of *Lamellidens marginalis* & *Lamellidens corrianus*.

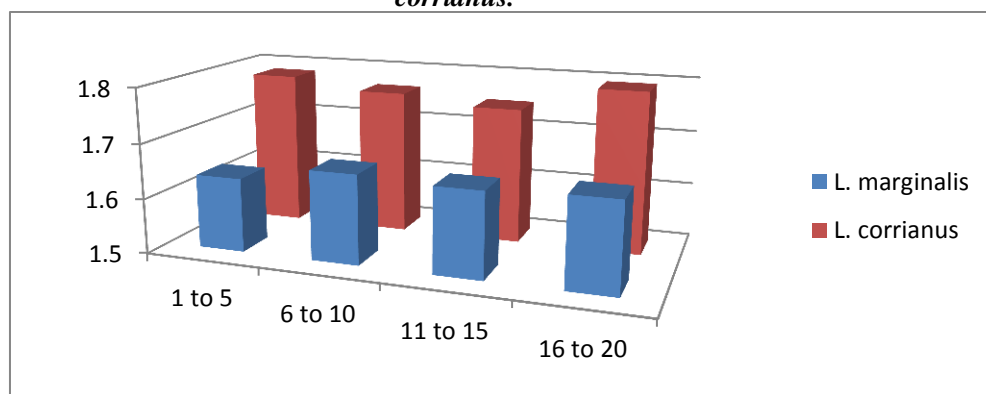


Chart 2 shows comparative values of Weight of *Lamellidens marginalis* & *Lamellidens corrianus*

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