# DETERMINE THE EFFECT OF FEED COMBINATIONS ON GROWTH PERFORMANCE AND SURVIVAL RATES OF LONG FIN BANNER FISH: *Heniochus acuminatus*

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# ABSTRACT

Feeding aquarium fish is very important to achieve higher growth, colouration and survival rates. To determine the effect of fish feed combinations for increasing the growth and survival rates of Long fin banner fish: *Heniochus acuminatus* was investigated in Aquatic Nurseries (Pvt) Ltd, Negombo over a period of ten weeks. Three replicates for each treatment (feed types) were followed. As experimental Feed types, 100% marine granulate, 25% shrimp and 75% marine granulate, 50% shrimp and 50% marine granulate, and 75% shrimp and 25% marine granulate were used. Marine granulate was used as the controller. Feed was supplied 7% of wet body weight of fish twice a day (0900hrs and 1600hrs) for ten weeks period.

A total of 120 fish (mean initial std. length 3.910 cm and mean wet initial body weight 2.147 g) were used to determine the growth performance over 4 feed combinations. Complete randomized block design was used for ten weeks feeding trial with four treatments which contained three replicates. Growth performance was assessed using specific growth rate, weight gain, length gain and survival rate. Fishes in F4 treated tanks showed higher performance than those fed with other feed combinations.

Finally highest specific growth rate (1.24%$^{-day}$), weight gain (1.382), length gain (1.216) and survival rate (96.66%) has achieved by the feed type 4 (75% shrimp & 25% marine granulate) treated fishes while the lowest specific growth rate (0.578% $^{-day}$), weight gain (0.75), length gain(0.7) and survival rate(76.66%) has achieved by feed type 1(100% marine granulate ). Highest Survival Rates were observed in Feed type 4 and 3.



**Key Words**: *Heniochus acuminatus*, Growth performance, Specific growth rate, Feed combinations