ABSTRACT

- The indoor culture potential of freshwater prawn (*Macrobrachium malcolmsonii*) was determined in growth trials performed in ten indoor aquaria using rations based on fish meal and shrimp meal as the main sources of protein. The dietary protein requirement of *M. malcolmsonii* juveniles was determined. Five protein levels from 30 – 40% at 2.5% interval were tested to assess the best growth. The maximum average weight (4.45±0.07 g) was observed in treatment (T_3) diet (containing 35% protein), while the minimum weight (3.45±0.07 g) was measured in treatment (T_4) diet (containing 37.5% protein). The percentage weight gain was highest in (T_3) fed diet (containing 35% protein). The prawns in treatment (T_3) diet (containing 35% protein), displayed higher specific growth rate (3.15, SGR). Feed conversion ratio (1.70, FCR) was lowest in treatment (T_3) fed diet (containing 35% protein). All the water quality parameters were recorded. Throughout the experimental period DO, ammonia, nitrate, and nitrite were recorded to be within the permissible limits for culturing of freshwater prawns. The values of temperature, pH, alkalinity and hardness were found to be little higher than the permissible limits. The results of ANOVA showed that there were no significant difference ($p \geq 0.05$) in the temperature, DO, alkalinity, weight gain, specific growth rate and feed conversion ratio values. There were significant differences ($p \leq 0.05$) in the pH, hardness, nitrite, ammonia, nitrate, phosphate and percentage weight gain.