

8th International Conference on

FISHERIES & AQUACULTURE

October 02-04, 2017 Toronto, Canada

Effects of different feeding levels and frequencies on growth performance, feed utilization, survival and body composition of the freshwater prawn *Macrobrachium rosenbergii***Madlen M Habashy and Deyab M S D EL-Saidy**National Institute of Oceanography and Fisheries, Egypt
University of Minufiya, Egypt

A 12-week randomized factorial design 3×4×2 (three feeding levels, four feeding frequency and two replicates) rearing trial was conducted in glass aquariums with an average initial weight of 0.014±0.01 g/ pL25 and an average initial length of 1.10±0.12 cm of each freshwater prawn, *Macrobrachium rosenbergii*, to examine the effects of the three feeding levels and four feeding frequencies on growth performances, survival rate % feed utilization and body composition. Twenty four aquariums, 120 l each were stocked with 30 juvenile each. The aquariums were divided randomly to give three feeding levels of 3, 5 and 10% of body weight daily and four feeding frequencies (once/day at 9.00 h. Twice/day at 9.00 and 20.00 h. Thrice/day at 9.00, 15.00 and 21.00h. Four times/day at 9.00, 13.00, 17.00 and 21.00 h) involving two replicates each. The results revealed that, mean final weight (g/animal), mean final length (cm/animal), gain in weight (g/animal), gain in weight %, gain in length, gain in length %, SGR (% per day) and survival rate % were significantly increased with increasing feeding level and exhibited the highest values at the 5% feeding level. While, feed conversion ratio, feed efficiency ratio, protein efficiency ratio and feed intake (g/animal) were significantly ($P\leq 0.01$) the best at the 3% feeding level. Feeding frequency were significantly affected by the mean final weight (g/animal), mean final length (cm/animal), gain in weight (g/animal), gain in weight %, gain in length, gain in length %, SGR (% per day), survival rate %, feed conversation ratio, feed efficiency ratio, protein efficiency ratio and feed intake (g/animal), its values were increased with increasing feeding frequencies and had the best values at the feeding frequency of three times daily. Condition factor (K) was significantly affected with feeding levels and feeding frequencies with highest values at feeding frequency of three times daily and feeding levels of 10% body weight daily. Whole body composition % of moisture decreased (73.29%) at 3% feeding levels and was not significantly influenced by feeding frequencies. Protein and fat contents of the whole body were significantly ($P\leq 0.05$) influenced by feeding levels but protein content did not get influenced by feeding frequencies. The highest protein content and lowest fat content were obtained at 5% feeding levels. Crude ash content of the whole body composition was significantly affected with feeding frequencies but not influenced by feeding levels. There was a significant ($P\leq 0.01$) interaction between feeding levels and feeding frequencies in all parameters studied. From the above results, it can be concluded that, feeding levels of 5% body weight daily at feeding frequencies of 3 times daily for freshwater prawn, *Macrobrachium rosenbergii*, juveniles exhibited the highest growth performance, survival rate % and the best feed utilization parameters which would seem to be the most desirable feeding levels and frequencies under this experimental conditions.

Biography

Madlen Mikhael Habashy is the Professor of Invertebrate Aquaculture at the Fish Research Station El-Qanater El-Khayria, Invertebrate laboratory (N I O F). She is the member of Egyptian Society for the Development of Fisheries Resources & Human Health. Her current research focuses on Aquatic Invertebrates, aquaculture and fisheries.

madlinhabashy@yahoo.com

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