

Breeding performance of *Pterophyllum scalare* (Angelfish) fed with enriched *Daphnia magna*

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Ornamental fish industry is a popular and profitable trade in the world. The production cost of ornamental fish varies with the cost of fish feed. The objective of the study was to investigate the breeding performance of *Pterophyllum scalare* fed with enriched *Daphnia magna*. The live feed of *Daphnia magna* was enriched with culture media, contained 58% crude protein and artificial feed with 40% crude protein were used to feed *Pterophyllum scalare* brooders (body weight 10g - 27g) as treatment I and II respectively. Square cement tanks with a size of 0.45 x 0.45 m² were used for each treatment with 4 replicates for 80 days experimental period. Average Temperature, pH, Dissolved Oxygen, and Alkalinity in the two treatments were maintained at 28 °C, 7.4, 6.9 ppm and 560 mg l⁻¹ respectively. Although the brooders spawned in both treatments, the relative fecundity was not significantly different (P>0.05). Other breeding performances such as fertilization rate, spawn recovery and spawning period have shown significant differences (P<0.05) between Treatment-1 and Treatment-11. Comparatively highest fertilization rate (93.19%) and survival rate (70.87%) were observed in the Treatment-1, whereas lowest (fertilization rate: 67.31%) (survival rate: 50.55%) in Treatment-11. Most of the eggs in the Treatment-11 remained immature. Highest breeding performance was resulted with enriched *Daphnia magna* when compared to artificial feed in *Pterophyllum scalare*. The results revealed that the nutritional quality of the live feed considerably influenced on the breeding performance of *Pterophyllum scalare*.

Keywords: Enrichment, Brooder fish, Breeding performance, *Pterophyllum scalare*, *Daphnia magna*