

DETERMINATION OF BREEDING PERFORMANCES OF
Pterophyllum scalare* (Angelfish) FED WITH ENRICHED *Daphnia
***magna*.**

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
in partial fulfillment of the requirement of
the degree of
Bachelor of Science in Aquatic Resources Technology

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2017

ABSTRACT

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 performance of breeding of *Pterophyllum scalare* fed with enriched *Daphnia magna*. The live feed *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 – 27 g) as treatment I and II respectively. Square cement tanks with a size of 0.45×0.45 m² were used for each treatment with 4 replicates. The measured water quality parameters were 28°C temperature, 7.4 pH, 6.9 ppm Dissolve Oxygen, 560 mg l⁻¹ Alkalinity. The experimental period was 80 days. Although the brooders spawned in both treatments, the relative fecundity was not significantly different (P > 0.05). Other breeding performance such as fertilization, spawn recovery and spawn period were shown significant differences (P < 0.05) between Treatment-I and Treatment-II. Comparatively highest fertilization rate (93.19%) and survival rate (70.87%) were observed in the Treatment-I whereas fertilization rate lowest (67.31%) and survival rate (50.55%) were obtained in Treatment-II. Most of the eggs in the Treatment-II, 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 the breeding performance of *Pterophyllum scalare*.

Key words: Enrichment, brooder fish, breeding performance, *Pterophyllum scalare*, *Daphnia magna*