

**BREEDING AND LARVAL-REARING STUDIES ON
ANGELFISH (*Pterophyllum scalare* Heckel)**

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ABSTRACT

RODERNO, CELESTE ESPIRITU. March 2000. Cavite State University, Indang, Cavite, "Breeding and Larval-Rearing Studies on Angelfish (*Pterophyllum scalare* Heckel)".

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Angelfish (*Pterophyllum scalare* Heckel) ~~were~~ studied to develop suitable breeding and larval-rearing techniques.

Fifty angelfishes were randomly paired for the assessment of bond-pairing, spawning and identification of male and female morphological characteristics. Identified pairs were subjected to two treatments : (1) Lighted and (2) Shaded, to assess the effect of shading on success of spawning and hatching performance. Similarly, six larval-rearing procedures were tested for survivability of recovered hatchlings.

Results showed that male and female angelfishes were identified according to the appearance of genital organ, spines on the caudal fin and sexual behaviors. Male fishes were observed to have tiny pointed genital papillae, rough and thicker spine on the caudal fin, aggressive behavior and nudging behavior to female. Female fishes were observed to have bulging rounded genital organ, smooth and thinner spine and exhibited male avoidance behavior.

Shading affected breeding and hatching performance of angelfish through spawning suppression and reduction of hatching rate. Shaded fish (Treatment 2) spawned less than half the frequency of lighted fish (Treatment 1). Hatching rate of eggs recovered from Treatment 1 was tenfold than those of Treatment 2. Mean number of days for eggs to hatch was shorter in Treatment 2 than in Treatment 1.

Rearing treatment procedure 4 (RT-4) with sequential diet of newly-hatched *Artemia* nauplii, addition of algae-containing water and application of prophylactic dose of antifungal agent resulted in 100% survival of recovered hatchlings up to fingerling stages. Factors like water temperature, pH, feed quality and type of algae were also found to be critical for successful breeding and larval rearing.

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