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EFFECTS OF DIETARY PROTEIN LEVEL ON THE GROWTH PERFORMANCE OF Garra ceylonesis (STONE SUCKER)

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G. ceylonensis is one of the major indigenous fish exported from Sri Lanka, and mainly exported as spa fish. Due to its high export demand, it is important to protect the wild population when meeting the customer demand. Aquaculture practices help to minimize exploitation of wild stock and produce larger stocks. A successful aquaculture depends on nutrient requirements. Proteins are the main organic constituent of fish tissues and it is essential for fish to ingest protein to obtain amino acids to synthesize new proteins for growth or replace existing. This comparative study was conducted to determine the influence of different dietary protein level in formulated diets on their growth performance (body indices of body length & weight) and survival of premature of *Garra ceylonensis* in aquarium condition. Premature G. ceylonensis (Mean standard length, total length and body weight were 2.67±0.05 cm, 3.49±0.05 cm and 3.49±0.01 g) were reared, in nine (three replicates) 45×45×45 cm3 similar glass tanks as 11 fish per tank. Feeding trial was conducted for 60 days and the fish were given either three diets with 25%, 30%, and 35% protein levels using fishmeal as the main protein source with 6% lipid level of sunflower oil for each protein levels. No significant difference of growth, and survival of fish were observed. Specific growth rates (SGR) were 0.0022 ± 0.0006, 0.0021 ± 0.00044 and 0.0034 ± 0.00027. Further Food conversion ratios (FCR) were 7.08±1.83, 5.83 ± 0.72 and 4.21±0.26, and Protein efficiency ratios (PER) were 0.55±0.16, 0.48 ± 0.12 and 0.67±0.26 respectively. Though it was not significant, the food consumption of *G. ceylonensis* had an increasing trend from 6% to 12% (2.81±0.16 as percentage body weight). Mortality of fish was very less in study period. It also visible that Survival Rate % were 94.00 ± 10.5, 94.00 ± 5.24 and 97.00 ± 5.24 which indicated the death assessment.

Keywords: *G. ceylonensis, Aquaculture, Feed conversion ratio, Specific growth rate, Protein efficiency ratio, growth performance*