

**DEVELOPMENT OF FISHMEAL FROM
KNIFEFISH *Chitala ornata***

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by

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Abstract

The current study was carried out to investigate the possibility of producing a fishmeal using knifefish which could be efficiently used as a protein source in fish feed.

Knifefish fishmeal was prepared for the experiment by sun drying the flesh, grinding and sieving. Two experimental diets were prepared as treatment 1 (Peliyagoda fishmeal) and treatment 2 (knifefish fishmeal). Both diets were formulated to contain 30-35% protein. Feeding trial was conducted for male and female guppies (mean initial weight 0.3 ± 0.09 g) separately for 20 days. Three replicates were used for each treatment with 30 fish in each tank. Fish were fed three times a day until satiation and fecal material were collected every morning by siphoning. Wet weight and standard length of the fish were measured weekly. FCR, SGR, weight gain, protein digestibility and PER were calculated. Cr_2O_3 was incorporated in the diets to measure digestibility. Data analysis was done by two-way ANOVA using Minitab 16 software.

Results of the study revealed no significant difference in the FCR, SGR, weight gain, protein digestibility and PER between the two treatments at 5% significance level. Hence knifefish fishmeal could be suggested as a possible substitute to Peliyagoda fishmeal. However, it is not efficient to use it as a replacement due to its high cost of production.

Key words: Feed conversion ratio, Specific growth rate, Weight gain, Protein digestibility, Protein efficiency ratio