Abstract

This study aims to analyze the effect of rebon shrimp flour and azolla flour-based feed formulations on proximate nutritional content and quality. The study was conducted for three months, from September to November 2025. This research was conducted at the Aquaculture Biology Laboratory of the University of Muhammadiyah Gorontalo and the Center for Testing, Application, and Verification of Fishery Products (BP2MDPP). The method used was an experimental method with a Completely Randomized Design (CRD) consisting of three treatments and three replications. The treatments tested were combinations of snail flour, azolla flour, and turmeric with different compositions. The parameters observed included protein, water, fat, ash, crude fiber, and carbohydrate content through proximate tests. Data were analyzed using analysis of variance (ANOVA) followed by the Least Significant Difference (LSD) test. The results showed that the treatments had a highly significant effect ($P<0.05$) on all proximate parameters of the feed. Treatment P3 produced the highest protein content at 43.87%, fat content at 3.68%, crude fiber at 3.11%, and carbohydrate at 7.28%. While treatment P3 had the lowest ash content at 28.46%. The moisture content of all treatments ranged from 1.11–1.30% and is still within safe limits for fish feed quality. The increase in protein, fat, and carbohydrate content in treatments with higher proportions of Azolla and turmeric indicates that this combination of local ingredients can improve the nutritional quality of the feed. Furthermore, the decrease in ash content indicates a more balanced mineral composition that is easily utilized by the fish.

Keywords: *Proximate analysis; Feed formulation; Tilapia; Azolla flour; Snail Flour.*