

Abstract

In this study, the effect of protexin probiotic on the indices of growth, survival, and safety of infants of *Schizothorax zarudnyi* was evaluated for 60 days. The fish were divided into 4 groups and each group was fed with diets supplemented with 0, 0.3, 0.5 and 1% protexin per kg with 3 replication per group. 144 *Schizothorax zarudnyi* Juvenile with an average weight of 24.19 ± 0.29 gr were accidentally distributed in 12 aquariums (45 liters) each including 12 Juvenile fish. Feeding was performed with the experimental diets based on a maximum of 3% of the live biomass and twice a day. The results showed protexin has no significant effect on Condition Factor (CF), Feed Conversion Ratio (FCR), and Survival rate ($p > 0.05$). Moreover, in terms of other growth factors such as Special Growth Rate (SGR) and Protein Efficiency Rate (PER), there is a significant difference between the control group and the treatment groups ($p < 0.05$). Analysis of the carcass biochemical compounds also revealed that the highest content of protein was observed in 1% treatment, whereas the lowest rate belonged to the control treatment. Also, the highest rates of fat and ash were recorded in the control treatment which had a significant difference with other treatments group. No distinct change was observed in the amount of liver blood enzymes such as ALP, AST, ALT, and LDH. The results also showed that using protexin could reduce bacterial population so that the greatest number of bacteria was observed in the control treatment. Finally, the results of the performed stress tests (temperature, salinity, and formalin) indicated that using protexin probiotic against salinity stress could make increase resistance of the Juvenile fishes and reduce tolerance against of formalin stress.

Key words: Specific growth rate, Protexin, Feed conversion ratio, *Schizothorax zarudnyi*



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Effect of dietary probiotic protexin on the
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