STUDY ON THE DIFFERENTIAL EFFECTS OF INSECT-BASED FEEDING IN JUVENILE WELS CATFISH (*Silurus glanis* Linnaeus, 1758)

L. B. Athanasopoulos*, V. Nistor, F. M. Dima, M. Tenciu, D. M. Stroe

Institute of Research and Development for Aquatic Ecology, Fishing and Aquaculture Galați, Romania
**e-mail: lilianablondina@yahoo.com*

Abstract

The need to secure food resources for a rapidly expanding global population necessitates solutions capable of replacing protein derived from increasingly limited aquatic resources. In this context, entomoculture-an essentially unlimited source of protein-emerges as a sustainable alternative with the potential to supply essential nutrients for both animal feed and human consumption. This study presents a comparative analysis of the effects of feeding juvenile wels catfish (Silurus glanis) with insect meals obtained from black soldier fly larvae (Hermetia illucens)-variant V1-and mealworm larvae (Tenebrio molitor)-variant V2. During the experiment, the V2 group exhibited a bacterial infection, whereas the V1 group showed no signs of disease. At the end of the experimental period, growth performance was 7% higher in the V2 group compared with V1. In conclusion, incorporating insect-meal mixtures into cultured fish diets is recommended, as they may induce a synergistic effect reflected in enhanced growth performance and an immunomodulatory response.

Key words: *nutrition, wels catfish juvenile, insect meal*