A COMPARATIVE ANALYSIS OF HEMATOLOGICAL PARAMETERS IN CARP INDIVIDUALS FROM DIFFERENT FISH FARMS

A. Şerban[1]*, M. Ivancia[1], A. Ciobanu[1], R. Mălăncuş[1], Ş. Creangă[1]

[1] "Ion Ionescu de la Brad" University of Life Sciences, Iaşi, Romania
**e-mail: aserban@uaiasi.ro*

Abstract

Air quality affects the terrestrial environment, while water quality is critical for the survival and well-being of aquatic animals. This is especially important when considering the potential use of underwater creatures for human consumption. However, it is unrealistic to expect water quality parameters to be constantly ideal for fish reproduction, growth, and development in fish farms. Thus, it is essential to study the impact of water quality on biological material, which is necessary for fish farm populations, and to understand how different environments affect fish growth and development. In this study, biological material from three fish farms located far apart was used to examine the impact of different water quality parameters on fish growth and development. The specimens used were clinically healthy and two years old. The differences in water quality parameters between the three environments had a significant impact on the specimens, causing significant changes in their growth and development when they were transferred to new environments. Some specimens even died during the experiment due to the differences in water quality. The study also found that the adaptability of fish to their environment is not transferable to new environments, which can lead to significant changes in hematological parameters. In some specimens, the studied parameters were halved after transfer, while in others, they doubled. The study concludes that heritability is influenced equally by genetic and environmental factors, and the environment plays a crucial role in determining the characteristics of fish.

Key words: *environment, heritability, quality, water*