

XV.
međunarodna
konferencija o
akvakulturi

Zbornik sažetaka radova

Program i Zbornik sažetaka

15th
International
Aquaculture
Conference

Book of Abstracts

Program and Book of Abstracts



**riba
Hrvatske**

Jedi što vrijedi

www.ribahrvatske.hr
www.fishfromcroatia.com



Sufinancira
Europska unija



Program
ZA RIBARSTVO
I AKVAKULTURU

Rising prevalence of infectious hematopoietic necrosis (IHN) in North Macedonian trout farms: A surveillance study of major viral pathogens in aquaculture (2015-2024)

Trajchovski Aleksandar¹, Popova Hristovska Zagorka¹, Grujovska Angela², Cvetkovikj Aleksandar¹

¹ Faculty of Veterinary Medicine-Skopje, Ss. Cyril and Methodius University in Skopje, Lazar Pop-Trajkov 5-7, 1000 Skopje, North Macedonia

² Food and Veterinary Agency, Treta Makedonska Brigada 20, 1000 Skopje, North Macedonia

Corresponding author: Aleksandar Trajchovski, DVM E-mail address: aleksandar.trajchovski@fvm.ukim.edu.mk Present address: Faculty of Veterinary Medicine-Skopje, Ss. Cyril and Methodius University in Skopje, Lazar Pop-Trajkov 5-7, 1000 Skopje, North Macedonia Phone: +38978204350

Abstract:

Aquaculture in North Macedonia has become increasingly vulnerable to viral diseases, posing significant risks to fish health and the economic stability of the sector. This study investigated the presence of three major viral diseases: Viral Hemorrhagic Septicemia (VHS), Infectious Hematopoietic Necrosis (IHN), and Koi Herpesvirus Disease (KHVD) through active surveillance conducted from 2015 to 2024. A total of 1.551 samples for VHS and IHN from 57 trout farms and 2.985 samples for KHVD from 43 carp farms were analyzed using molecular diagnostic methods. All samples for VHS and KHVD tested negative. However, IHN cases were observed for the first time in 2018 on two fish farms. A significant increase in IHN cases was recorded in 2020, with 18 farms testing positive. The number of infected farms continued to rise in subsequent years, with two new cases in 2021, seven in 2022, six more in 2023 and 3 in 2024, bringing the total to 36 IHN-positive farms. The prevalence of IHN increased from 3.92% in 2018, when there were 51 active farms, to 72% in 2024, with 50 active fish farms. Genetic analysis revealed that the IHN virus isolates belong to clade E-1 of the European genogroup E. The growing prevalence of IHN underscores the urgent need to enhance biosecurity measures. Factors such as insufficient biosecurity protocols, high stocking densities, and poor water quality likely contributed to the virus's spread. This study emphasizes the importance of continuous surveillance, robust biosecurity practices, and a collaborative approach involving researchers, fish farmers, and regulatory bodies.