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# Certificate

This is to certify that

**Oleksandr Mykhalko**

from the

Sumy National Agrarian University (Ukraine)

participated in the training at  
University of Dubrovnik (Croatia)

within the framework of the  
AFISHE

“Development of Aquaculture and Fisheries Education for Green Deal in  
Armenia and Ukraine: from education to ecology”

Erasmus+ CBHE project on 26.02.2024 – 08.03.2024.

The training is 90 hours and 3 credits.

Associate Professor Marijana Pećarević,  
PhD

Garegin Hambardzumyan

Vice-Rector for International Relations and  
science  
University of Dubrovnik

AFISHE project coordinator  
Head of International Relations Department  
Armenian National Agrarian University

A blue ink signature of Marijana Pećarević, consisting of stylized, overlapping lines.

08 March 2024

A blue ink signature of Garegin Hambardzumyan, written in a cursive style.



## Topics of the training

### Diversification of Fish Farming

#### **THEORETICAL TOPICS**

- 1) *Overview of course content*
- 2) *DIVERSIFICATION OF FISH FARMING AND CRITERIA FOR CHOOSING NEW SPECIES*
- 3) *OVERVIEW OF CURRENT FARMING AND HATCHERY TECHNOLOGY THAT CAN BE USED FOR INTRODUCTION OF NEW SPECIES*
- 4) *ISSUES WITH REPRODUCTION, QUALITY OF OFFSPRING AND LARVICULTURE OF FISH NEW TO AQUACULTURE*
- 5) *ISSUES OF FEEDING FISH NEW TO AQUACULTURE*
- 6) *STATUS OF RESEARCH INTO NEW SPECIES AND INTRODUCTION TO COMMERCIAL PRODUCTION*
- 7) *DIVERSIFICATION WITH FISH FROM FAMILY SCOMBRIDAE AND CORYPHAENIDAE*
- 8) *DIVERSIFICATION WITH FISH FROM FAMILY CARANGIDAE*
- 9) *DIVERSIFICATION WITH FISH FROM FAMILY SCIAENIDAE*
- 10) *DIVERSIFICATION WITH FISH FROM FAMILY SERRANIDAE AND POLYPRIONIDAE*
- 11) *DIVERSIFICATION WITH FISH FROM FAMILY SPARIDAE*
- 12) *DIVERSIFICATION WITH FISH FROM MUGILIDAE AND ANGUILLIDAE*
- 13) *DIVERSIFICATION OF FLATFISH (PLEURONECTIFORMES) PRODUCTION*
- 14) *DIVERSIFICATION OF PRODUCTION WITH OTHER FISH SPECIES*

#### **PRACTICAL CLASSES AND ACTIVITIES:**

- *Laboratory experiments: setting up a controlled greenwater system and maturing a simple mesocosm system*
- *Practical work: Designing an experiment with live fish in controlled systems (feeding experiment)*
- *Visit to external institutions: fish farm, seafood market, public aquarium*