



**International Conference**  
**World Fish Migration Day - Discover the wonderful world of migratory fish!**  
Thursday, 21 May 2026

# *Book of Abstracts*

## **Comitetul de organizare / Organizing Committee**

**coordonator / coordination** – ec Mihai VINTILĂ

**membri / members** – analist IT Ionut MARCU, ACS dr. ecolog Anca Nicoleta SĂVESCU, ACS drd. ing. Alina Nicoleta DOBRE, ACS drd. ec. Angelica DOBRE, CS drd. ing. Viorica SAVIN, CS ing. Marilena Florentina LĂCĂTUȘ, CS ing. Gabriel ION, dr. ing Cioromele Gabriela Alina, dr. ing. Axinti Nicoleta, ACS Bejenariu Ionica.

**membri ASAS** – prof.univ. dr. ing. Petru NICULIȚĂ, Președintele Secției de Industrie Alimentară, Academiei de Științe Agricole și Silvicultură „Gheorghe Ionescu – Șişești” , prof. univ. dr. Nicole Livia PETCULESCU, secretar al Secției de Industrie Alimentară, Academiei de Științe Agricole și Silvicultură „Gheorghe Ionescu – Șişești”

## **Comitetul științific / Scientific Committee**

**presedinte** – CS I prof. univ.dr. ing. Neculai PATRICHE, membru corespondent al Academiei de Științe Agricole și Silvicultură „Gheorghe Ionescu – Șişești”

**membri / members** – CS II conf. univ. dr. ing. Floricel Maricel DIMA, CS III dr. ing. Magdalena TENCIU, CS III dr. ing. Veta NISTOR, CS II dr. ing. Elena SÎRBU, CS II dr. ing. Maria Desimira STROE.

## **Organisators**

WWF – ROMÂNIA, INSTITUTE OF RESEARCH AND DEVELOPMENT FOR AQUATIC ECOLOGY, FISHING, AND AQUACULTURE (ICDEAPA) and NATURAL SCIENCES MUSEUM COMPLEX "RĂSVAN ANGHELUȚĂ" GALAȚI.

EVENT ORGANISED BY:



International Conference

# WORLD FISH MIGRATION DAY



Discover the wonderful world of migratory fish!



21 May 2026, Thursday



9:00 AM

Register now!



Conference Hall, Natural Sciences Museum Complex "Răsvan Angheluță", Galați, Romania



FREE REGISTRATION. HYBRID FORMAT



More info:  
marketing@asas-icdeapa.ro

PARTNERS



CO-FINANCIERS



With the contribution of the LIFE-Programme of the European Union.

# EDUCATIONAL AND SOCIAL PATHWAYS IN CONSERVING ANADROMOUS FISH IN THE DANUBE BASIN: THE ROLE OF THE "RĂSVAN ANGHELUȚĂ" GALAȚI MUSEUM COMPLEX OF NATURAL SCIENCES IN PUBLIC AWARENESS

Gabriela GRIGORAȘ<sup>1\*</sup>, Mariana LUCA<sup>1</sup>

<sup>1</sup>Răsvan Angheluță” Museum Complex of Natural Sciences, Galați. România

**Key words.** *Anadromous fish, sturgeons, public awareness, environmental education, Danube Basin*

## Abstract

Anadromous fish of the Danube–Black Sea basin represent a key ecological component, ensuring connectivity between riverine and marine ecosystems, with sturgeons standing out as ancient, emblematic species of high ecological and cultural significance that are now critically endangered. Over recent decades, multiple anthropogenic pressures, including river fragmentation, pollution, overfishing and habitat degradation have led to a marked decline in their populations.

Despite their ecological importance and increasing conservation efforts, these species remain relatively “invisible” to the public, resulting in uneven levels of awareness and opportunities to further strengthen societal engagement in their protection.

Enhancing the connection between scientific knowledge and public understanding is therefore an important component of effective conservation.

This paper explores the role of socio-educational approaches in supporting public awareness of migratory fish, using the “Răsvan Angheluță” Museum Complex of Natural Sciences (Galați, Romania) as a case study.

The study analyses a set of complementary educational tools, including live exhibitions of sturgeon species, thematic micro exhibitions focused on migratory Ponto-Caspian sturgeons relics, interactive edutainment activities (such as large-scale puzzles and virtual reality experiences) and structured educational programs targeting different age groups.

The research is based on qualitative observations of visitor engagement and learning outcomes, supported by participation data derived from educational programs conducted by the Aquarium Department in 2025, involving 1,090 students across seven educational programs and 53 educational sessions.

Results indicate increased curiosity and interest among visitors, improved understanding of ecological processes and conservation challenges, and the development of emotional connections with species and habitats. These outcomes contribute to a gradual shift from a predominantly resource-based perception of fish toward more conservation-oriented attitudes.

Aquariums and museums can function as effective interfaces between science and society, translating complex ecological concepts into accessible and engaging experiences. For endangered species such as sturgeons and Danube shad, socio-educational interventions represent an essential component of integrated conservation strategies.

## **JOINT INITIATIVES IN THE DANUBE BASIN - TOWARDS A COHERENT IMPLEMENTATION OF THE PAN EUROPEAN ACTION PLAN FOR STURGEONS**

**Beate STRIEBEL<sup>1</sup>**

<sup>1</sup>WWF Sturgeon Initiative Lead, Austria

**Key words.** *Sturgeon, european action plan, Danube Basin, MonStur project, the LIFE boat*

## **ADVANCING STURGEON CONSERVATION IN THE BLACK SEA BASIN: AN INTEGRATED MONITORING AND HABITAT ASSESSMENT APPROACH UNDER THE BLISS PROJECT**

**Lorena DEDIU<sup>1</sup>, Iulia GRECU<sup>1\*</sup>, Angelica DOCAN<sup>1</sup>, Cristian RÎMNICEANU<sup>1</sup>**

<sup>1</sup>”Dunarea de Jos” University of Galati, Romania

**Key words.** *Sturgeon, Black Sea basin, BLISS project, conservation*

## **SAFEGUARDING THE GIANTS OF THE DANUBE - LIFE- BOAT4STURGEON PROJECT AND OTHER PROJECTS**

**Cristina MUNTEANU<sup>1</sup>**

<sup>1</sup>National Sturgeon Conservation Coordinator WWF-Romania

**Key words.** *Sturgeon, Black Sea basin, BLISS project, conservation*

## **STUDY ON MIGRATION AND PHYSIOLOGICAL CONDITION OF PONTIC SHAD POPULATIONS AND EVALUATION OF HYDROCLIMATIC EFFECTS**

**Angelica DOBRE<sup>1,2</sup>, \*, Desimira Maria STROE<sup>1</sup>, Gabriel ION<sup>1</sup>, Alina Nicoleta DOBRE<sup>1,3</sup>, Danut MIREA<sup>1</sup>, Floricel Maricel DIMA<sup>1,4</sup>**

<sup>1</sup>Institute of Research and Development for Aquatic Ecology Fisheries and Aquaculture, 54 Portului Street, 800211, Galati, Romania

<sup>2</sup>University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Marasesti Blvd, District 1, Bucharest, Romania

<sup>3</sup>Faculty of Food Science and Engineering, Dunarea de Jos University of Galati, 47 Domneasca Street, 800008, Galati, Romania

<sup>4</sup>Faculty of Engineering and Agronomy in Braila, Dunarea de Jos University of Galati, 20 Calarasilor Street, 810017, Braila, Romania

**Key words.** *Sturgeon, Black Sea basin, conservation, hydroclimatic effects*

## **DIADROMOUS FISH, UPDATED CHALLENGES**

**Eric ROCHARD<sup>1\*</sup>, Patrick LAMBERT<sup>1</sup>, Marie-Laure ACOLAS<sup>1</sup>, Géraldine LASSALLE<sup>1</sup>**

INRAE, Aquatic Ecosystems and Global Changes, Bordeaux, France

**Key words.** *Diadromus fish, conservation, challenges, movement, salinity levels*

## **THE STURGEON FISHING BAN IN ROMANIA AFTER TWO DECADES: LESSONS LEARNED AND REMAINING CHALLENGES**

**Tudor IONESCU<sup>1\*</sup>, Maria Desimira STROE<sup>2</sup>**

<sup>1</sup>Aquatic Biodiversity Center, Romania

<sup>2</sup>Institute of Research and Development for Aquatic Ecology Fisheries and Aquaculture, 54 Portului Street, 800211, Galati, Romania

**Key words.** *Sturgeon, sturgeon fish ban, fish ban history, sturgeon challenges*

# MAPPING STURGEON FORAGING AREAS IN THE WESTERN BLACK SEA. AN APPROACH FOR INTEGRATING CONSERVATION TARGETS AND SUSTAINABLE MANAGEMENT OF MARINE RESOURCES

Victor NIȚĂ<sup>1</sup>

<sup>1</sup>National Institute for Marine Research and Development “Grigore Antipa“ Constanta, Romania

**Key words.** *Sturgeon, sturgeon foraging areas, Black sea, marine resources*

## BEHAVIOURAL, PHYSIOLOGICAL AND LOCOMOTOR RESPONSES TO MIGRATORY FISH

Aurelia NICA<sup>1,2,\*</sup>, Ira-Adeline SIMIONOV<sup>1,3</sup>, Alina ANTACHE<sup>1,3</sup>, Isabelle METAXA<sup>1</sup>, Stefan-Mihai PETREA<sup>1,3</sup>

<sup>1</sup>Food Science, Food Engineering, Biotechnology and Aquaculture Department, Food Science and Engineering Faculty, „Dunărea de Jos” University of Galați, Domnească Street, no. 47, Galați – 800008, Romania

<sup>2</sup>„Dunărea de Jos” University of Galați, Multidisciplinary Research Platform (ReForm) – MoRAS, Galați, Romania

<sup>3</sup>REXDAN Center, „Dunărea de Jos” University of Galați, Domnească Street, no. 47, Galați – 800008, Romania

**Key words.** *migration, response, behavioral, physiological, locomotor*

### Abstract

Behavioral, physiological and locomotor responses to migratory challenges are essential mechanisms by which migratory fish, especially salmonids, manage to overcome obstacles encountered during their journey to breeding grounds. Migration involves crossing variable environments, characterized by temperature changes, strong currents, hydrological barriers and limited energy availability, which requires complex adaptations at the level of the entire organism. From a behavioral point of view, migratory fish exhibit high plasticity of their movement strategies. At a physiological level, increasing water temperature causes an increase in metabolism and an increase in oxygen demand. In situations where the energy demand exceeds the capacity of the cardio-respiratory system, the body resorts to anaerobic metabolism, which leads to the accumulation of lactic acid, muscle fatigue and reduced locomotor performance. Prolonged exposure to heat stress and excessive exertion can cause osmotic imbalances, reduced energy reserves, and even pre-reproductive mortality. In addition, the energy consumed during migration diminishes the resources available for gonadal maturation, gamete production, and reproductive

behaviors. Locomotor responses are oriented toward saving energy and maximizing swimming efficiency. Salmonids frequently employ the strategy of alternating rapid accelerations with short periods of passive gliding. This tactic reduces the energetic cost of movement and allows partial recovery of muscle fibers. In areas with turbulence or strong currents, fish can exploit vortices created by natural or artificial obstacles to advance with reduced energy expenditure. However, in situations where the current speed is very high, intense swimming, dependent on anaerobic metabolism, is required, which increases fatigue and the risk of exhaustion.

Thus, successful migration depends on the integration of behavioral, physiological, and locomotor responses. The ability of migratory fish to adjust the timing of movement, maintain internal homeostasis, and employ efficient swimming strategies are decisive factors for survival and reproduction, especially in the context of climate change and aquatic habitat degradation.

## **FISH MIGRATION PARTICULARITIES BETWEEN THE NISTRU RIVER AND THE RĂUT RIVER**

**Dumitru BULAT<sup>1\*</sup>, Denis BULAT<sup>1</sup>**

<sup>1</sup>Moldova State University, Institute of Zoology, Republic of Moldova

**Key words.** *fish fauna, Nistru River, Răut River, fish migration*

### **Abstract**

This study investigates the particularities of fish migration between the Răut and Bâc rivers and the Nistru River, within the context of the severe degradation of aquatic ecosystems in the Republic of Moldova. Hydromorphological changes, pollution, and the fragmentation of watercourses have caused significant alterations in the structure and functioning of fish communities, particularly affecting native reophilic and migratory species. Ichthyological studies conducted between 2024 and 2025 highlight high diversity in the lower sector of the Răut River (31 species), compared to the Bâc River (9 species), where the fish community is highly simplified and dominated by pollution-tolerant species. The results highlight the important role of the Nistru tributaries in supporting fish migration and conserving biodiversity, and the negative impact of human pressures on these processes. Finally, management and ecological restoration measures are proposed, including the restoration of longitudinal connectivity, improvement of water quality, and protection of spawning areas, to ensure the conservation of fish resources and the sustainable functioning of aquatic ecosystems.

# THE LAST JOURNEY OF CAVIAR: RETHINKING STURGEON CONSERVATION THROUGH CULTURAL MEMORY, MIGRATION ECOLOGY, AND ECOLOGICAL RECOVERY

Isabelle METAXA<sup>1</sup>, Aurelia NICA<sup>1,2</sup>, Stefan-Mihai PETREA<sup>1,3</sup>  
Ira-Adeline SIMIONOV<sup>1,3</sup>, Alina ANTACHE<sup>1,3</sup>,

<sup>1</sup>Food Science, Food Engineering, Biotechnology and Aquaculture Department, Food Science and Engineering Faculty, „Dunărea de Jos” University of Galați, Domnească Street, no. 47, Galați – 800008, Romania

<sup>2</sup>„Dunărea de Jos” University of Galați, Multidisciplinary Research Platform (ReForm) – MoRAS, Galați, Romania

<sup>3</sup>REXDAN Center, „Dunărea de Jos” University of Galați, Domnească Street, no. 47, Galați – 800008, Romania

**Key words.** *Caviar, sturgeon, ecological recovery, migration ecology, conservation*

## PARTNERS



## CO-FINANCIERS

