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## **Joint Operational Programme Black Sea Basin 2014-2020** **Project code BSB27**

*“Black Sea Basin interdisciplinary cooperation network for sustainable joint monitoring of environmental toxicants migration, improved evaluation of ecological state and human health impact of harmful substances, and public exposure prevention (MONITOX)”*

MONITOX International Conference  
**“Environmental Challenges in the Black Sea Basin: Impact on Human Health”**,  
Galati, Romania, September 23<sup>rd</sup>-26<sup>th</sup>, 2020

### **CONFERENCE PROGRAM**

#### **23<sup>rd</sup> September, 2020**

17:30-18:30 h Dunarea de Jos University of Galati (UDJG), Romania  
Registration of participants (Part I) - Microsoft Teams

#### **24<sup>th</sup> September, 2020**

SESSION A. Dunarea de Jos University of Galati (UDJG), Romania,  
Faculty of Sciences and Environment, Hall SB401

09:30-10:00 h Dunarea de Jos University of Galati (UDJG), Romania  
Registration of participants (Part II) - Hall SB401 & Microsoft Teams

10:00-12:15 h

#### **PLENARY SESSION AND VIRTUAL PRESENTATIONS**

➤ **Conveners:**

Prof.dr.habil. Antoaneta Ene, Project Manager Leader Partner UDJG, Romania  
Dr. chem. Liliana Teodorof, Project coordinator Partner 5 DDNI Tulcea, RO

#### **Opening ceremony - Welcome of participants**

Prof.dr.habil. Antoaneta Ene - Project Manager, UDJG, RO,  
Coordinator of Multidisciplinary Platform ReForm-UDJG  
Prof.dr.eng. Gabriela Elena Bahrim - Project Quality monitoring Manager, UDJG, RO



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## INVITED LECTURES

No.	Time	Title & Authors
IL.A.1	10:00-10:15	<b>International interdisciplinary cooperation for monitoring of inorganic and radioactive toxicants in the Lower Danube Euroregion, Black and Aegean Seas Basins</b> Antoaneta Ene, Elena Zubcov, Thomas Spanos, Oleg Bogdevich, Liliana Teodorof, Yuriy Denga, Marina Frontasyeva, Claudia Stih, Ana Pantelică, Octavian Dului
IL.A.2	10:15-10:35	<b>MONITOX health risk calculator and ICT tools for improved dissemination of scientific information in the Black Sea Basin</b> Antoaneta Ene, Elena Zubcov, Thomas Spanos, Oleg Bogdevich, Liliana Teodorof, Corina Bocaneala
IL.A.3	10:35-10:55	<b>Sediments quality assessment in terms of integrated indices from Romanian MONITOX network (2019 - 2020)</b> Liliana Teodorof, Adrian Burada, Cristina Despina, Daniela Seceleanu-Odor, Cosmin Spiridon, Mihaela Tiganus, Marian Tudor, Antoaneta Ene, Elena Zubcov, Thomas Spanos, Oleg Bogdevich
IL.A.4	10:55-11:10	<b>Highly sensitive multiresidue analysis of antibiotics and anti-inflammatory drugs from the aquatic ecosystems</b> Elena Enachi, Carmen Chițescu, Gabriela Bahrim, Antoaneta Ene
IL.A.5	11:10-11:25	<b>Challenges for use the microalgae cultures in bioremediation of the waters contaminated with emerging pollutants</b> George Ifrim, Antoaneta Ene, Gabriela Bahrim, Florina Cristiana Caprita
IL.A.6	11:25-11:40	<b>Study of microbiological contamination level of surface water in MONITOX network areas before and after COVID-19 pandemic</b> Antoaneta Ene, Mihaela-Aida Vasile, Gabriela Bahrim
IL.A.7	11:40-12:00	<b>Nature-based solutions for streams to reduce sediment and litter pollution in the Black Sea</b> Valasia Iakovoglou, Paschalis Koutalakis, Daniel Diaconu, Mustafa Tufekcioglu, Ilya Trombitsky, Andranik Ghulijanyan, Mirela Marinescu, Aydin Tufekcioglu, George N. Zaimes
IL.A.8	12:00-12:15	<b>The use of GIS to determine stream bank erosion prone areas in two watersheds of Greece</b> Georgios Pagonis, Valasia Iakovoglou, George N. Zaimes

12:15-13:45 h Break

13:45 -16:00 h

## ORAL PRESENTATIONS

### ➤ Conveners:

Dr. chem. Liliana Teodorof, Project coordinator Partner 5 DDNI Tulcea, RO

Prof. dr. chem. Thomas Spanos, Project coordinator Partner 3 IHU Kavala, GR

No.	Time	Title & Authors
O.A.1	13:45-14:00	<b>Instrumental neutron activation analysis on <i>Herring Tissue</i> (M-3 HerTis reference material)</b> Ana Pantelică, Halina Polkowska-Motrenko, Zbigniew Samczyński
O.A.2	14:00-14:15	<b>Review of measurements data for natural radioactivity and risk to population in selected areas from MONITOX network</b> Antoaneta Ene, Elena Zubcov, Thomas Spanos, Oleg Bogdevich, Liliana Teodorof
O.A.3	14:15-14:30	<b>Evolutionary trends of oncological pathology in Galati county and role of environmental factors</b> Laura Rebegea, Dorel Firescu, Mihaela Dumitru
O.A.4	14:30-14:45	<b>Environmental factors' contribution in skin cancer etiology</b> Mihaela Crăescu, Laura Rebegea, Niculet Elena, Carmen Bobeica, Alin Laurentiu Tatu
O.A.5	14:45-15:00	<b>Integrating LMS and IoT in the educational system</b> Daniel Ganea, Marian Craciun, Catalin Arama, Ciprian Vlad
O.A.6	15:00-15:15	<b>QR code based access control system for hotels</b> George Petrea, Ciprian Vlad, Cătălin Aramă, Marian Crăciun, Bogdan Ionescu



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O.A.7	15:15-15:30	<b>Environmental impact of clandestine laboratories manufacturing drugs of abuse: an overview and a new analytical solution</b> Mirela Praisler
O.A.8	15:30-15:45	<b>Prooving the environmental impact of NBOMe clandestine laboratories: a new analytical tool</b> Adelina Ion, Steluta Gosav, Mirela Praisler
O.A.9	15:45-16:00	<b>Improved detection of 2C-x and Dox amphetamines - an analytical tool mitigating the environmental impact of their illicit manufacturing, consumption and disposal</b> Catalin Negoita, Mirela Praisler

16:00-17:30 h

## POSTERS SESSION & VIRTUAL PRESENTATIONS

- P.A.01. Heavy metals concentrations in Danube sediments on Romanian territory in the last 375 km**  
Adrian Burada, Cristina Despina, Daniela Seceleanu-Odor, Mihaela Țigănuș, Spiridon Cosmin, Liliana Teodorof, Antoaneta Ene
- P.A.02. Danube River influence on the North-Western Shelf of the Black Sea**  
Cristina Despina, Adrian Burada, Daniela Seceleanu-Odor, Mihaela Tiganus, Spiridon Cosmin, Marian Tudor, Teodorof Liliana, Antoaneta Ene, Christina Chatzichristou
- P.A.03. Changes in nutrients concentrations in two years of monitoring in Danube River waters between Calarasi-Silistra and the discharge area into the Black Sea**  
Daniela Seceleanu-Odor, Liliana Teodorof, Adrian Burada, Mihaela Tiganus, Cristina Despina, Spiridon Cosmin, Marian Tudor, Antoaneta Ene
- P.A.04. Chlorophyll „a” distribution from surface waters in MONITOX Romanian network, in 2019 and 2020**  
Cosmin Spiridon, Adrian Burada, Liliana Teodorof, Cristina Despina, Daniela Seceleanu - Odor, Marian Tudor, Antoaneta Ene
- P.A.05. Assessment of heavy metals concentrations in different components of an aquaculture pond ecosystem**  
Ira-Adeline Simionov, Victor Cristea, Dragoș Cristea, Antoaneta Ene, Alina Mogodan, Stefan-Mihai Petrea, Aurelia Nica
- P.A.06. Low-background high resolution gamma-ray spectrometry applied for assessment of natural and artificial radioactivity of industrial soils in Danube River region (SE Romania) and health risk**  
Antoaneta Ene, Ana Pantelica, Marina Frontasyeva, Florin Sloata
- P.A.07. Ecological risk assessment of pharmaceuticals in aquatic ecosystems**  
Antoaneta Ene, Carmen Lidia Chitescu, Eric Carmona, Gabriela Bahrim
- P.A.08. Distribution of chemical elements in mosses collected from north-western part of Romania**  
Claudia Stihl, Antoaneta Ene, Marina Frontasyeva, Cristiana Radulescu, Ioana Dulama
- P.A.09. Fish fauna from Danube Delta Biosphere Reserve**  
Aurel Năstase
- P.A.10. Assessment of the process of copper stabilization from polluted soils**  
Alina Sion, Antoaneta Ene
- P.A.11. *Vibrio fischeri* photobacteria used to determine the toxicity of the soil**  
Alina Sion, Antoaneta Ene
- P.A.12. Role of GIS (Geographic Information Systems) on management of riverine (sample area along Kura River)**  
Shahnaz Amanova
- P.A.13. Estimating flood risk for Dendropotamos torrent of Thessaloniki, Greece**  
Panagiotis Komis, Evangelos Filippidis., George N. Zaimis
- P.A.14. Investments in the field of drinking water and wastewater in Galati county**  
Luiza Florea, Antoaneta Ene, Victor Cristea, Marian Coada
- P.A.15. The repercussions of the construction of hydropower plants on the fish populations**  
Marian Tiberiu Coadă, Victor Cristea, Luiza Florea, Antoaneta Ene
- P.A.16. Determination of PCBs concentrations in waste oils from industrial high voltage electrical equipment by gas chromatographic method**  
Florin Sloata, Antoaneta Ene
- P.A.17. Nitrogen, phosphorus and potassium investigation in topsoil layers from temperate agroecosystems, SE Romania**  
Sorina-Simona Moraru, Antoaneta Ene



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- P.A.18. Toxicity, chemical composition of particulate matter and their relationship to microclimate conditions inside and outside of Roman Mosaic Edifice area**  
Cristiana Radulescu, Claudia Stihi, Ioana Daniela Dulama, S.G. Stanescu, R.M. Stirbescu, A.I. Gheboianu, I.V. Gurgu, R.L. Olteanu, C.M. Nicolescu<sup>2</sup>, D.D. Let, I.A. Bucurica, S. Teodorescu L. Olteanu, N.M. Stirbescu
- P.A.19. Factors influencing the variation of radon and thoron activity concentration in selected indoor spaces in Romania**  
Antoaneta Ene, Ana Pantelica
- P.A.20. Real time monitoring data of radiation doses in Lower Danube Euroregion and South-eastern part of Romania**  
Antoaneta Ene, Iulian Racovita, Andreea Reclaru, Ionut Marin
- P.A.21. Assessment of quality of Danube River sediments in Romania, ecological and health risk**  
Antoaneta Ene, Ana Pantelica, Claudia Stihi, Sorina-Simona Moraru, Alina Ceoromila
- P.A.22. Investigation of surface water quality from Lower Danube Region, Galati County**  
Antoaneta Ene, Maria Cioroi, Daniela Dumitrita Padurariu (Sarbu)
- P.A.23. Granite slabs between radiation emission and design**  
Antoaneta Ene, Eugenia Pascu, Mădălina Stăvărache
- P.A.24. Phytoremediation strategies applied for industrial pollution of the soil**  
Alina Sion, Antoaneta Ene
- P.A.25. Machine Learning and Artificial Intelligence for health monitoring**  
Simona Moldovanu, Felicia Anişoara Damian, Lenuţa Pană, Luminiţa Moraru
- P.A.26. Noise: a risk factor for sailors' health and navigation safety**  
Mihaela Picu
- P.A.27. The alien substances diffusivity in the marine water based on fractional calculus**  
Viorel Laurentiu Cartas

**25<sup>th</sup> September, 2020**

**SESSION B. Institute of Zoology (IZ), Chisinau, Republic of Moldova, Hall 352**

**09:45-10:00 h**

Registration of participants (Part III) - IZ, Hall 352

**10:00-11:40 h**

**PLENARY SESSION**

➤ **Conveners:**

Prof.dr.hab. Elena Zubcov, Project coordinator Partner 2 IZ-MD

Dr. geol. Oleg Bogdevich, Project coordinator Partner 4 IZ-MD

**INVITED LECTURES**

No	Time	Title & Authors
IL.B.1	10:00-10:20	<b>Arsenic, selenium, phosphorous and copper in the fish of <i>Cyprinidae</i> and <i>Percidae</i> families of the Prut river</b> Elena Zubcov, Nina Bagrin, Natalia Zubcov, Dumitru Bulat, Denis Bulat, Victor Ciornea, Nadejda Andreev, Antoaneta Ene, Liliana Teodorof, Thomas Spanos
IL.B.2	10:20-10:40	<b>Soil contamination and risks for human health in Low Danube Region</b> Oleg Bogdevich, Antoaneta Ene, Igor Nicoara, Oleg Cadocinico, Elena Nicolau, Elena Culighin, Marina Grigoraş
IL.B.3	10:40-11:00	<b>Study of metals in water, suspensions and sediments in the lower part of the Dniester River during 2019</b> Vladimir Ukrainskiy, Svitlana Kovalyshyna, Yuriy Denga, Elena Zubcov, Nina Bagrin, Nadia Andreev, Victor Ciornea, Vladimir Kolosov, Antoaneta Ene
IL.B.4	11:00-11:20	<b>Control and assessment of the risk of population exposure to radon in Republic of Moldova</b> Liuba Coretchi
IL.B.5	11:20-11:40	<b>The impact of recreational fishing on fish resources of the transboundary Lower Dniester River</b> Ilya Trombitsky, Dumitru Bulat, Denis Bulat, Elena Zubcov, Serghei Filipenco, Mihail Mustea, Dinu Bogaty, Vladimir Gubanov, Mykola Stepanok, Vladimir Romanescu



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11:45-12:30 h

### ORAL PRESENTATIONS

No	Title & Authors
O.B.1	Inorganic and organic nitrogen in the Prut waters Nina Bagrin, Elena Zubcov, Lucia Biletschi, Petru Ciorba, Natalia Borodin
O.B.2	Phytoplankton state and water quality in the Dniester River lower sector Daria Tumanova, Laurenția Ungureanu
O.B.3	The dynamics of the destruction activity of bacterioplankton in the Lower Prut in 2018-2019 Igor Subernetkii, Maria Negru, Elena Zubcov

12:30-14:00 h

### POSTERS SESSION

- P.B.01. **The study of PAHs and BTEX pollution spectrum of petrol contaminated site: distribution pattern and risk assesment**  
Oleg Bogdevich, Antoaneta Ene, Oleg Cadocinikov, Elena Nicolau, Elena Culighin, Marina Grigoraș
- P.B.02. **Accumulation potential for heavy metals of the edible snail *Helix Pomatia* L**  
Nadejda Andreev, Elena Zubcov
- P.B.03. **Results on fish catches in Dubasari reservoir in the first half of 2020**  
Denis Bulat, Dumitru Bulat, Elena Zubcov, Lucia Biletschi, Marin Usatii
- P.B.04. **Analysis of BOD<sub>5</sub>/COD<sub>Cr</sub> relation in the Prut River water**  
Anastasia Ivanova, Nina Bagrin, Olga Jurminskaia
- P.B.05. **Investigation of the phenol- and hydrocarbon-degrading microorganisms in the Prut River bacterioplankton**  
Olga Jurminskaia, Elena Zubcov, Lucia Biletschi
- P.B.06. **Suspended substances of the Prut River**  
Petru Ciorba
- P.B.07. **Economic valuation of ecosystem services in the Dniester basin**  
Olga Cazanteva, Roman Corobov, Ghennadi Sirodoev, Ilya Trombitsky
- P.B.08. **Assessment of pressures as the first step in economic valuation of changes in ecosystems services**  
Roman Corobov, Ilya Trombitsky, Antoaneta Ene
- P.B.09. **The water quality in transboundary Dniester River as a factor of impact on human health**  
Tatiana Siniaeva
- P.B.10. **Quantification of heavy metals and trace elements in industrial materials and wastes by combined analytical techniques**  
Antoaneta Ene, Florin Sloata, Ana Pantelica, Oleg Bodgevich, Elena Culighin, Dana Iulia Moraru, Geta Szabo, Vasile Basliu
- P.B.11. **Study on the dynamics of the Prut river flow and level in Romania**  
Antoaneta Ene, Elena Zubcov

26<sup>th</sup> September, 2020

10:00-11:00 Round table - MONITOX project teams

Discussions and conclusions after the international conference - Skype, MONITOX group