

USB - SECTION BIOLOGY

**INSTITUTE OF BIODIVERSITY AND
ECOSYSTEM RESEARCH – BAS**



11th SEMINAR OF ECOLOGY - 2018

WITH INTERNATIONAL PARTICIPATION

26-27 April 2018

**Програма/Program
Абстракти/Abstracts**





**11th ANNUAL
“SEMINAR OF ECOLOGY – 2018”
WITH INTERNATIONAL PARTICIPATION**

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PROGRAM

26 April 2018

8⁰⁰ - 9⁰⁰ Registration (IBER-BAS-2 Gagarin Str., Sofia)

9⁰⁰ – 9³⁰ Opening Ceremony

9³⁰ – 9⁴⁵ Family photo

9⁴⁵-10⁰⁰ "Seminar of Ecology - 11 years in the scientific skyline, first year on the Internet" a presentation on the first web site of the Seminar. Galia Georgieva

10⁰⁰-10³⁰ IBER-BAS Assoc. prof. Anna Ganeva

THEMATIC SESSION

BIOTIC AND ABIOTIC IMPACT OF THE LIVING NATURE AND MECHANISMS OF ADAPTATION

Chairmen: Prof. Stephka Chankova and Prof. Snezhana Grozeva

Plenary presentations

10³⁰-10⁵⁰ INVASIVE ALIEN SPECIES – POTENTIAL CHEAP RESOURCES OF PLANT SUBSTANCES FOR MEDICINAL USE Ekaterina Kozuharova, Ilina Krasteva, Aleksandar Shkondrov, Iliana Ionkova- **PL02_01**

10⁵⁰-11¹⁰ EFFECT OF FUNGICIDES ON SOIL MICROBIAL COMMUNITY Galina Radeva, Michaela Aleksova, Silvena Boteva, Anelia Kenarova- **PL02_02**

Oral presentations

11¹⁰-11²⁰  CHARACTERISTICS OF PHOTOSYNTHETIC APPARATUS OF ERYNGIUM MARITIMUM L. AND POLYGONUM MARITIMUM L. - HALOPHYTIC PLANTS FROM DUNES OF POMORIE LAKE (BULGARIA) WITH DIFFERENT ADAPTIVE STRATEGY AGAINST SOIL SALINITY Lilia Angelova, Albena Ivanova, Irina Kosakivska, Lilia Babenko, Svetlana Momchilova, Sabina Taneva, Albena Momchilova, Liliana Maslenkova- **L02_01**

11²⁰-11³⁰  COMPARISON OF THE EFFECTS OF SALT STRESS ON TWO PAULOWNIA LINES Martin Stefanov, Ekaterina Yotsova, Emilia Gesheva, Velmira Dimitrova, Yuliana Markovska, Snezhana Doncheva, Emilia Apostolova - **L02_02**

11³⁰-11⁴⁰  MOLECULAR DETECTION OF NOSEMA CERANAE AND NOSEMA APIS IN BULGARIAN HONEY BEES Iskra Yankova, Daniela Sirakova, Boyko Neov, Georgi Radoslavov, Peter Hristov- **L02_03**

11⁴⁰-11⁵⁰  BIOLOGICAL AND STATISTICAL COMPARISON OF EXPERIMENTAL RESULTS- GOOD APPROACH FOR ANALYZING ADAPTIVE POTENTIAL OF GENETICALLY CLOSELY RELATED GENOTYPES Tsveta Angelova, Valeria Simeonova, Zhana Mitrovska, Stephka Chankova - **L02_04**

11⁵⁰-12⁰⁰ NURELLE D BIOACTIVITY DEPENDING ON THE TEST SYSTEM Teodora Todorova, Petya Parvanova, Abdel-Tawab H. Mossa, Kostadin Kostadinov, Martin Dimitrov, Ivan Iliev, Zhana Mitrovska, Tsveta Angelova and Stephka Chankova - **L02_05**

12⁰⁰-12¹⁰  IS THERE A RELATIONSHIP BETWEEN DNA REPAIR EFFICIENCY, HSP_s AND GENOTYPE RESISTANCE? Daniela Miteva, Zhana Mitrovska, Nadejda P. Yurina, Stephka Chankova- L02_06

12¹⁰-12²⁰ GENOTOXIC AND MUTAGENIC EFFECTS OF NARCISSUS TRIANDRUS L. TOTAL EXTRACT ON *CHLAMYDOMONAS REINHARDTII* Petya Parvanova, Zhana Mitrovska, Boriana Sidjimova, Milena Nikolova, Strahil Berkov and Stephka Chankova- L02_07

12²⁰-12⁴⁰ Discussion

12⁴⁰-13⁴⁰ Lunch

THEMATIC SESSION ECOLOGY AND EDUCATION

Chairmen: Prof. Spasimir Tonkov and Prof. Daniela Pilarska

Plenary presentations

13⁴⁰-14⁰⁰ SUCCESSFUL IMPLEMENTATION OF PROJECT-BASED LEARNING IN HIGHER EDUCATION: AN EXAMPLE FROM ECOLOGY Kamelia Yotovska, Victoria Necheva- PL05_01

Oral presentations

14⁰⁰-14¹⁰ THE SCHOOL EDUCATION – A CONDITION TO FORM POSITIVE ATTITUDE TOWARDS ENVIRONMENT OR ECOLOGY Ekaterina Yovcheva, Veneta Kirkovska- L05_01

14¹⁰-14³⁰ Discussion

THEMATIC SESSION LANDSCAPE ECOLOGY

Chairman: Prof. Svetlana Banchева and prof. Mariyana Lyubenova

Plenary presentations

14³⁰-14⁵⁰-ACADEMICIAN ANASTAS ISHIRKOV'S CONTRIBUTION TO THE DEVELOPMENT OF BIOGEOGRAPHY IN BULGARIA (ON THE OCCASION OF 150 YEARS FROM HIS BIRTH) Assen Assenov-PL04_01

Oral presentations

14⁵⁰-15⁰⁰- FIRST ATTEMPT OF A HIERARCHICAL CLASSIFICATION OF BENTHIC SEASCAPE UNITS IN THE BULGARIAN BLACK SEA Iliyan Kotsev- L04_01

15⁰⁰-15¹⁰- LAZARUS TAXA IN ANIMALIA KINGDOM Borislav Grigorov, Assen Assenov- L04_02

15¹⁰-15³⁰ Discussion

15³⁰-16⁰⁰ -Coffee break

16⁰⁰-18⁰⁰ Poster sessions (*BIOTIC AND ABIOTIC IMPACT OF THE LIVING NATURE AND MECHANISMS OF ADAPTATION; ECOLOGY AND EDUCATION; LANDSCAPE ECOLOGY; OTHER RELATED TOPICS*) and Discussion

Chairmen: Assoc. Prof. Assen Assenov and Assoc. Prof. Galina Radeva

POSTER SESSION

BIOTIC AND ABIOTIC IMPACT OF THE LIVING NATURE AND MECHANISMS OF ADAPTATION

P02_01 EUROPEAN ROE DEER (*CAPREOLUS CAPREOLUS*) AS A BIOMONITOR FOR THE CURRENT ENVIRONMENT HEAVY METALS CONTAMINATION IN AN AGRICULTURAL REGION IN BULGARIA *Georgi Markov, Atidzhe Ahmed*

P02_02 INTERRELATIONSHIP BETWEEN FRESH AND DRY WEIGHT OF INTERNAL TARGET ORGANS OF ROE DEER (*CAPREOLUS CAPREOLUS*): APPLICATION FOR THE PURPOSES OF BIOMONITORING OF THE ENVIRONMENT *Georgi Markov, Atidzhe Ahmed*

P02_03 GROWTH LIGHT INTENSITY EFFECT ON THE STRUCTURAL STABILITY OF LHCII IN PEA THYLAKOIDS *Nia Petrova, Svetozar Stoichev, Svetla Todinova, Stefka Taneva, Sashka Krumova*

 **P02_04 COMMUNITY STRUCTURE AND INDIVIDUAL REACTION OF CHIRONOMIDAE (DIPTERA) LARVAE IN ANTHROPOGENICALLY IMPACTED SITES OF DANUBE RIVER (NE BULGARIA)** *Mila Ihtimanska, Julia Ilkova, Paraskeva Michailova*

P02_05 MORPHOGENESIS AND DEVELOPMENTAL PATTERNS AFFECT POLYPHENOLICS PRODUCTION AND ENDOGENOUS STRESS HORMONES IN ARTEMISIA ALBA TURA IN VITRO *Kalina Danova, Vaclav Motyka, Petre Dobrev*

 **P02_06 CHANGES OF ANTIOXIDATIVE ENZYMES DURING NATURAL REGENERATION IN DECIDUOUS FORESTS** *Vasil Chavgov, Detelina Petrova, Miroslava Zhiponova, Ganka Chaneva, Adriana Marinova, Svetoslav Anev, Nikolina Tzvetkova*

 **P02_07 DYNAMICS OF THE HEALTH STATUS OF COPPICE OAK FORESTS IN SOUTHWESTERN BULGARIA** *Nikolay Zafirov, Krasen Banov*

 **P02_08 IMPACTS OF THE FUNGICIDE AZOXYSTROBIN ON SOIL BACTERIAL COMMUNITIES** *Michaella Aleksova, Jordan Manasiev, Silvena Boteva, Mladen Popov, Anelia Kenarova, Galina Radeva*

P02_09 PROTEIN/RNA RATIO OF QUIESCENT AND EXPONENTIALLY GROWN CELLS OF SACCHAROMYCES CEREVISIAE *Anna Tomova, Anna Kujumdzieva, Ventsislava Petrova*

 **EP02_01 HIGH-LIGHT-INDUCIBLE SMALL STRESS PROTEINS AND THEIR LOCALIZATION IN THE CHLOROPHYLL-PROTEIN COMPLEXES OF CYANOBACTERIA** *Lubov Sharapova, Yuliya Oleskina, Nadezhda Yurina*

ECOLOGY AND EDUCATION

P05_01 INNOVATIVE INTEGRATED TRAINING IN HEALING PLANTS BUSINESS – TBP *Anna Kujumdzieva, Trayana Nedeva, Aleksander Savov, Tereza Toncheva*

P05_02 BLENDED LEARNING IN BIOINFORMATICS – THE SMES INSTRUMENT FOR BIOTECH INNOVATIONS – BIOTECH-GO *Anna Kujumdzieva, Trayana Nedeva, Aleksander Savov, Tereza Toncheva*

LANDSCAPE ECOLOGY

P04_01 RADIOLOGICAL MONITORING OF DRINKING WATERS IN BULGARIA *Radoslava Lazarova, Ivanka Yordanova, Donka Staneva*

OTHER RELATED TOPICS

 **P06_01 SUPER-CRITICAL CARBON DIOXIDE AS EFFECTIVE ECO-FRIENDLY SOLVENT FOR EXTRACTION OF PURSLANE (PORTULACA OLERACEA L.)** *Sabina Taneva, Svetlana Momchilova, Angel Konakchiev, Vladimir Dimitrov*

27 April 2018

**THEMATIC SESSION
BIODIVERSITY AND CONSERVATION BIOLOGY**

Chairman: Prof. Boyko Georgiev and prof. Vlada Peneva

Plenary presentations

9⁰⁰-9²⁰- BIOTECHNOLOGICAL APPROACH FOR PLANT PROPAGATION AND CONSERVATION IN IBER: AIMS AND ACHIEVEMENTS Marina Stanilova-PL01_01

9²⁰-9⁴⁰- WHO POLLINATES THE MEDICINAL PLANTS? Ekaterina Kozuharova - PL01_02

9⁴⁰-10⁰⁰- THE SECRETS OF PREDATORY NEMATODES (MONONCHIDA) Vlada K. Peneva, Aleksandar Mladenov, Milka Elshishka, Stela Lazarova- PL01_03

10⁰⁰-10²⁰ Discussion

10²⁰-10⁴⁰- Coffee break

Oral presentations

10⁴⁰-10⁵⁰- THE ANTHROPOPHYTE FLORA OF LOZENSKA MOUNTAIN Plamen Glogov, Dolja Pavlova- L01_01

10⁵⁰-11⁰⁰- NEW INSIGHTS INTO MORPHOLOGY AND TAXONOMY OF THE PHOXINUS COMPLEX IN BULGARIA Nina Bogutskaya, Tihomir Stefanov, Oleg Diripasko- L01_02

11⁰⁰-11¹⁰-  MITOCHONDRIAL DIVERSITY OF BULGARIAN NATIVE DOGS SUGGESTS DUAL PHYLOGENETIC ORIGIN Miroslav Marinov, Denitsa Teofanova, Georgi Radoslavov, Peter Hristov- L01_03

11¹⁰-11²⁰-  NEW DATA ON MORPHOLOGY AND TAXONOMY OF THE FISHES FROM GENUS *ALBURNOIDES* (ACTINOPTERYGII, CYPRINIDAE) IN SOUTH-EASTERN BALKANS (AEGEAN AND BLACK SEA BASINS) Tihomir Stefanov- L01_04

11²⁰-11³⁰-  TOOLS OF PUBLIC RELATION IN HELP OF CONSERVATION BIOLOGY Elisaveta Kozuharova, Danail Danov- L01_05

11³⁰-11⁴⁰ - STUDY ON MACROZOOBENTHIC TROPHIC STRUCTURE OF TEMPORARILY DRY RIVERS FROM BULGARIAN RIVER TYPE R14 *Rabia Soufi, Maria Kerakova, Emilia Varadinova* **L01_06**

11⁴⁰-11⁵⁰  ECOLOGICAL STATUS ASSESSMENT OF MOUNTAINOUS AND SEMI-MOUNTAINOUS STREAMS VIA DIFFERENT BIOTIC INDICES BASED ON BENTHIC MACROINVERTEBRATES - THE CASE STUDY OF MACEDONIAN-BULGARIAN CROSS-BORDER TERRITORY *Biljana Rimcheska, Yanka Vidinova* **L01_07**

11⁵⁰-12²⁰-Discussion

12²⁰-13²⁰-Lunch

Chairman: Assoc. Prof. Ekaterina Kozuharova and Assoc. Prof. Ventsislav Karamfilov

13²⁰-13³⁰ - WHAT DO WE KNOW ABOUT RUDERAL FLORA AND VEGETATION IN BULGARIA? *Kiril Vassilev, Mediya Gumus, Rayna Natcheva, Veselin V. Shivarov, Borislav Grigorov, Stoyan Georgiev, Nikolay Velev* **L01_08**

13³⁰-13⁴⁰ - RELATIONSHIP BETWEEN GENETIC AND CHEMOTYPIC DIVERSITY IN PERENNIAL MEDICINAL PLANT *GLAUCIUM FLAVUM* CRANTZ (PAPAVERACEAE) *Galya Petrova, Stefan Petrov, Iva Doycheva, Stoyan Stoyanov, Marina Stanilova* **L01_09**

13⁴⁰-13⁵⁰ - GENUS *PSEPHELLUS* (ASTERACEAE) IN THE BULGARIAN FLORA *Svetlana Bancheva, Malina Delcheva* **L01_10**

13⁵⁰-14⁰⁰  NEW AND AMONG THE LARGEST POPULATIONS OF THE ENDANGERED ORCHID *GOODYERA REPENS* (L.) R. BROWN IN BULGARIA – STATUS *Andrey Popatanasov* **L01_11**

14⁰⁰-14¹⁰  FIRST RESULTS ON OF *SPERMOPHILUS CITELLUS* DISPERSAL AFTER REPATRIATION IN BULGARIA *Maria Kachamakova, Yordan Koshev* **L01_12**

14¹⁰-14²⁰ - A PHYTOCHEMICAL INSIGHT ON *CLINOPODIUM VULGARE* L. (LAMICEAE) *Krum Bardarov, Reneta Gevrenova, Dimitrina Zheleva-Dimitrova and Ventsislav Bardarov* **L01_13**

14²⁰-14³⁰  THE USE OF THE INDEX "% OLIGOCHAETA" IN DETERMINATION OF ECOLOGICAL STATUS AND POTENTIAL OF STANDING WATER BODIES *Galia Georgieva, Yordan Uzunov* **L01_14**

14³⁰-15⁰⁰ Discussion

15⁰⁰-15²⁰ - Coffee break

THEMATIC SESSION

ECOSYSTEM RESEARCH, SERVICES AND ECOLOGICAL AGRICULTURE

Chairmen: Prof. Valko Biserkov and assoc. prof. Stela Lazarova

Plenary presentations

15²⁰-15⁴⁰ MAPPING AND ASSESSMENT THE CONDITION AND ECOSYSTEM SERVICES OF INLAND WETLANDS IN BULGARIA OUTSIDE THE NATURA 2000 ECOLOGICAL NETWORK Nevena Ivanova - PL03_01

15⁴⁰-16⁰⁰ MAPPING OF ECOSYSTEMS TYPES, CONDITIONS AND THEIR SERVICES. CHALLENGES AND RECENT ACHIEVEMENTS IN THE BULGARIAN BLACK SEA REGION Ventsislav Karamfilov, *Dimitar Berov, Valko Biserkov, Georgi Daskalov, Stephania Klayn-* PL03_02

Oral presentations

16⁰⁰-16¹⁰ -  MACROPHYTES-BASED ECOLOGICAL STATUS ASSESSMENT OF DRAGOMANSKO AND ALDOMIROVSKO MARSHES Teodora Ilieva, *Gana Gecheva, Kiril Vassilev-*L03_01

16¹⁰-16³⁰ Discussion

16³⁰-17⁰⁰ - Coffee break

17⁰⁰-19⁰⁰ Poster sessions (BIODIVERSITY AND CONSERVATION BIOLOGY; ECOSYSTEM RESEARCH, SERVICES AND ECOLOGICAL AGRICULTURE) and Discussion

Chairmen: Assoc. prof. Antoaneta Petrova and Assoc. Prof. Marina Stanilova

POSTER SESSION

BIODIVERSITY AND CONSERVATION BIOLOGY

 P01_01 RED DEER (*CERVUS ELAPHUS* L.) POPULATION DENSITY IN THE CENTRAL BALKAN MOUNTAINS (BULGARIA) REVEALED BY CAMERA TRAPS *Elitsa Popova, Ivan Stepanov, Atidzhe Ahmed, Peter Genov, Ivan Todev*

P01_02 MOLECULAR CHARACTERIZATION AND FIRST BULGARIAN RECORD OF *BUCHWALDOBOLETUS SPHAEROCEPHALUS* Boris Assyov, *Fuat Bozok, Hatıra Taşkın*

P01_03 *PLANETELLA LIRONIS* (ANTHRACOIDEACEAE) – A NEW RECORD FROM GREENLAND Teodor T. Denchev & *Cvetomir M. Denchev*

P01_04 PANGEON MT IN NORTH-EASTERN GREECE - NATURAL BOTANICAL GARDEN AND WORLD NATURE WEALTH Asen Asenov

P01_05 HYDROPONIC APPROACH FOR SEED PROPAGATION OF *HABERLEA RHODOPENSIS* FRIV. (GESNERIACEAE) Boryanka Traykova, *Marina Stanilova*

P01_06 INTRODUCTION OF *IN VITRO* CONDITIONS OF THE WILD *MENTHA PULEGIUM* L. Stanislava Stateva, *Katya Uzundzhalieva*

 **P01_07 BRYOPHYTES AND LARGER FUNGI ON THE TERRITORY OF VRANA PARK** Galın Gospodinov, *Aneta Lambevskă-Hristova, Rayna Natcheva, Melanya Gyosheva*

P01_08 IMPACT OF SMALL HYDROPOWER PLANTS (SHPP) ON ECOLOGICAL STATE AND MACROZOOBENTHIC TROPHIC STRUCTURE (ISKAR RIVER, BULGARIA) Maria Kerakova, *Stefan Kazakov, Emilia Varadinova, Luchezar Pehlivanov*

 **P01_09 DIVERSITY AND DISTRIBUTION OF BENTHIC DIATOM ASSEMBLAGES IN SMALL AND MEDIUM-SIZED BLACK SEA RIVERS AND ASSESSMENT OF THEIR ECOLOGICAL STATUS** Tsvetelina Isheva & *Nadya Georgieva Ognyanova Rumenova*

 **P01_10 WHAT DO WE KNOW ABOUT VEGETATION AND HABITAT DIVERSITY OF STRAZHATA HILL, NORTHERN BULGARIA?** Momchil Nazurov, *Gana Gecheva, Constantin Mardari, Kiril Vassilev*

P01_11 *IN VITRO* PROPAGATION OF *ASTRACANTHA THRACICA* (FABACEAE) *Irena Mincheva, Marina Stanilova, Svetlana Bancheva*, Malina Delcheva

P01_12 NEW RECORDS OF BULGARIAN HYPOGEOUS FUNGI Boris Assyov, *Monica Slavova*

P01_13 NEW DATA ON THE SPECIES OF ORCHIDACEAE IN THE STRANDZHA NATURAL PARK *Svetla Dalakchieva*, Antoaneta Petrova

P01_14 NEW ALIEN CONIFEROUS SPECIES IN BULGARIA Antoaneta Petrova, *Rosen Vassilev, Kamen Bakardzhiev, Boris Assyov*

P01_15 PARASITIDS AND INQUILINES ASSOCIATED WITH GALLS OF ANDRICUS QUERCUSTOZAE (HYMENOPTERA: CYNIPIDAE) IN BULGARIA Ivaylo Todorov, Boyan Zlatkov, Anelia Stojanova, George Melika

 **P01_16 ETHNOBOTANY AND EXPLOITATION OF MEDICINAL PLANTS IN THE RHODOPE MOUNTAINS** Irena Mincheva, Michaela Jordanova, Ina Aneva, Ekaterina Kozuharova

P01_17 NEW SPECIES OF CRISTAMPHIDELUS SIDDIQI AND VINCIGUERRA, 1991 (NEMATODA: ALAIMIDA) FROM LIVINGSTON ISLAND, MARITIME ANTARCTIC Milka Elshishka, Stela Lazarova, Georgi Radoslavov, Vlada K. Peneva

ECOSYSTEM RESEARCH, SERVICES AND ECOLOGICAL AGRICULTURE

 **P03_01 IDENTIFICATION OF ECOSYSTEM TYPES IN HIGH MOUNTAIN AREAS: A CASE STUDY IN RILA MOUNTAIN** Kostadin Katrandzhiev, Svetla Bratanova-Doncheva, Stoyan Nedkov

P03_02 APHID PEST SPECIES ON CHRYSANTHEMUM MORIFOLIUM RAMAT. IN BULGARIA Mariya Yovkova, Aneliya Pencheva

P03_03 PRELIMINARY RESULTS OF THE EUTROPHICATION ASSESSMENT OF THE WATER BODIES IN THE LOWER DANUBE FLOODPLAIN USING REMOTE SENSING IMAGES AND IN-SITU VERIFICATION Stefan Kazakov, Valko Biserkov, Luchezar Pehlivanov, Stoyan Nedkov

 **P03_04 WEED SPECIES DIVERSITY AND COMMUNITY COMPOSITION IN ORGANIC POTATO FIELD** Iliana Gerasimova, Totka Mitova

19⁰⁰-19³⁰ Film

19³⁰ AWARDS AND CLOSING PROCEDURE OF THE 11th ANNUAL “SEMINAR OF ECOLOGY - 2018” WITH INTERNATIONAL PARTICIPATION