6TH CONGRESS OF ECOLOGISTS
OF THE REPUBLIC OF NORTH MACEDONIA,
WITH INTERNATIONAL PARTICIPATION

Programme of the 6th Congress of Ecologists of North Macedonia, with international participation

15-18.10.2022 Ohrid

50 ГОДИНИ МАКЕДОНСКО ЕКОЛОШКО ДРУШТВО
50 YEARS MACEDONIAN ECOLOGICAL SOCIETY

Day	Hours	Activity	Venue
15.10.2022 (Saturday)	9:00- 11:30	Registration of the participants	Congress Reception Desk
	12:00-13:00	Congress opening ceremony	Hall Biljana
	13:00-13:30	Remembering Ljupčo Melovski	Hall Biljana
	13:30-14:15	50 Years Macedonian Ecological Society	Hall Biljana
	14:15-16:00	Cocktail party	Hotel Balcony
	16:00-19:15	Populations, communities and ecosystems	Hall Biljana
	16:00-19:15	Hydrobiology, water management and monitoring	Hall Labino
	21:00	Party	h. Bellevue - Casino
16.10.2022 (Sunday)	8:00- 9:00	Registration of the participants	Congress Reception Desk
	9:00-9:45	Plenary lecture #1	Hall Biljana
	9:45-20:00	Biodiversity and conservation biology	Hall Biljana
	9:45-12:00	Ecological education	Hall Labino
	16:00-18:30	Environmental change	Hall Labino
	17:00-18:30	Natural resources management	Hall Labino
	21:00	Beach Party	h. Bellevue beach
17.10.2022 (Monday)	8:00- 9:00	Registration of the participants	Congress Reception Desk
	9:00-9:45	Plenary lecture #2	Hall Biljana
	9:45-11:15	Symposium of Prespa Lakes	Hall Biljana
	9:45-12:15	Symposium of biology students	Hall Labino
	12:30-16:30	Excursion	To be announced
	17:00-19:45	Symposium on Nature conservation in Bregalnica watershed	Hall Biljana
	18:05-19:45	Symposium of protected areas	Hall Biljana
	21:00	Party	h. Bellevue – Casino/Disco
18.10.2022 (Tuesday)	8:00- 9:00	Registration of the participants	Congress Reception Desk
	9:00-12:30	Air, water and soil pollution	Hall Biljana
	9:00-11:00	Forestry and Agriculture	Hall Labino
	13:00	Closing of the Congress	Hall Biljana

15.10.2022 (Saturday)

Registration of participants 09:00 – 11:30

12:00 – 13:00
Opening of the Congress

13:00 – 13:30
Remembering Ljupčo Melovski

13:30 – 14:15
50 years Macedonian Ecological Society

14:15 – 16:00 Cocktail party

Populations, communities and ecosystems
Hall – Biljana

Chairs: Liljana Tomović, Diana Zlatanova

Oral presentations: 16:00 – 17:30
Poster presentations: 18:15 – 19:15

Coffee break 17:45 – 18:00

Introductory lecture (20 minutes)

A twist of fate: Conservation of Lake Prespa's iconic snakes - *Vukašin Bjelica, Marko Maričić, Marko Anđelković, Ana Golubović, Rastko Ajtić, Bogoljub Sterijovski, Dragan Arsovski, Ljiljana Tomović, Xavier Bonnet*

Oral presentations (15 minutes)

Environmental drivers of ground-floor bryophytes diversity in temperate forests - *Miloš Ilić, Ružica Igić, Mirjana Ćuk, Dragana Vukov*

Pelagonian *Pinus sylvestris* forests – a new proposed habitat for Annex I of Habitat Directive - *Dejan Mandžukovski, Aco Teofilovski, Bogoljub Sterjovski, Rossen Tzonev, Marius Dimitrov*

Phytocenological research of the vegetation of the lowland meadows in Debrca Region - *Cvetanka Cvetkoska, Renata Ćušterevska, Vlado Matevski, Mitko Kostadinovski, Sara Cvetanoska, Angela Ivanova*

Preliminary data on the change of wolf feeding behavior in the presence of anthropogenic food sources - *Elena Tsingarska-Sedefcheva, Daniela Simeonovska-Nikolova, Venislava Spasova, Krastio Dimitrov*

Relationships between host traits and intestinal nematode abundance in rodents of Vojvodina province, Serbia - *Borislav Čabrilo, Božana Tošić, Milan Miljević, Ivana Budinski, Marija Rajičić, Branka Bajić, Olivera Bjelić Čabrilo, Jelena Blagojević*

The effects of urban habitats on morphological variations of a skull in populations of yellow-necked mice *Apodemus fllavicollis - Aleksa Rončević, Marija Rajičić, Ivana Budinski, Milan Miljević, Branka Bajić, Tanja Adnađević, Jelena Blagojević*

Discussion (10 minutes)

Coffee break: 17:45-18:00

Poster presentations

Contribution to the researches of the chasmophytic vegetation in the surroundings of Skopje (gorge of the Treska River) - *Sara Cvetanoska, Renata Ćušterevska, Vlado Matevski, Mitko Kostadinovski, Cvetanka Cvetkoska, Angela Ivanova*

Body Condition Index can help assess foraging opportunity and fecundity in the Hermann's tortoise - *Dragan Arsovski, Vladimir Stojanoski, Ana Golubović, Xavier Bonnet, Ljiljana Tomović*

Classification of calcareous grasslands in the submediterranean areas in the southern part of Balkan Peninsula - *Renata Ćušterevska, Andraž Čarni, Vlado Matevski, Mitko Kostadinovski*

Definition of Lake Ohrid and Lake Prespa ecosystem services and mind maps - *Orhideja Tasevska, Maria Silvia Giamberini, Antonello Provenzale, Ilaria Baneschi, Danijela Markovic, Barbara Zennaro, Elizabeta Veljanoska Sarafiloska, Suzana Patcheva, Goce Kostoski, Sasho Trajanovski*

Diversity and distribution of beetle fauna in the riparian belt of the river Bregalnica, North Macedonia - *Aleksandra Cvetkovska-Gjorgjievska, Slavčo Hristovski, Dana Prelić*

Effect of temperature on number and arrangement of eyespots in *Maniola jurtina* - *Tina Klenovšek, Predrag Jakšić, Franc Janžekovič*

Evaluation of ecological risk assessment on Belcista wetland and impact on fish populations - *Lidija Velkova-Jordanoska, Stojmir Stojanovski, Dijana Blazekovic Dimovska, Vasil Kostov, Irina Manevska, Julijana Arsovska, Kristijan Veljanovski*

Evaluation of prickly pear vegetation unit in Phthiotida Perfection (Central Greece) - *Ilias Apostolou, Georgios Fotiadis*

Morphological differences between the aquatic and the terrestrial forms of amphibious *Persicaria amphibia* (L.) Delarbre - *Danijela Nikolić, Milica Cvetanović, Marina Jušković, Ana Savić, Dragana Jenačković Gocić, Irena Raca, Vladimir Ranđelović*

Phytosociological study of *Cupressus sempervirens* dominated stands in South Croatia - *Nenad Jasprica*

Rare and endemic plant species of Kefalonia island (Greece) - *Georgios Fotiadis, Michail Xanthakis, Panagiotis Minetos, Pantelis Alntanis, Ioannis Saganis, Christos-Stefanos Profitis*

Rodent helminth fauna of Special nature reserve Koviljski rit on the territory of Vojvodina - *Božana Tošić, Borislav Čabrilo, Milan Miljević, Sara Savić, Tamaš Petrović, Olivera Bjelić-Čabrilo*

The association: *Rubo-Rhododendretum ferrugineae* ass. nova prov - *Naim Berisha, Renata Ćušterevska, Fadil Millaku, Vlado Matevski*

Discussion (10 minutes)

Hydrobiology, water management and monitoring
Hall – Labino

Chairs: Valentina Slavevska-Stamenković, Zlatko Levkov

Oral presentations: 16:00 – 17:30
Poster presentations: 18:00 – 19:15

Coffee break 17:45 – 18:00

Oral presentations (15 minutes)

Alarm mechanism for impending climate change: springs on high altitude vs springs on low altitude - *Ana Savić, Dejan Dmitrović, Miodrag Djordjević, Tina Mitić, Dimitrije Tričković, Vladimir Pešić*

Capacity of short-term and long-term incubated periphyton for phosphorus accumulation in the mesotrophic lake basin - *Marija Pećić, Slobodan Grašić, Slađana Popović, Gordana Subakov Simić, Dragana Predojević*

Environmental drivers of macrophyte functional diversity in artificial and heavily modified water-bodies in Serbia - *Dragana Vukov, Miloš Ilić, Mirjana Ćuk, Ružica Igić*

Macrophyte vegetation of Kopački rit Nature Park (Eastern Croatia) and phytosociological challenges - *Antun Alegro, Anja Rimac, Vedran Šegota*

Severe domination of *Pseudanabaena Lauterborn* species (Cyanobacteria, Synechococcales) in Lake Dojran (North Macedonia): a focus on their toxic potential - *Boris Aleksovski, Svetislav Krstić, Otakar Strunecký, Ana Vućurević, Evgenija Stefanoska, Danijela Mitic-Kopanja*

Discussion (10 minutes)

Coffee break: 17:45-18:00

Poster presentations

Anthropogenic impact on the Prištavica River (Serbia) ecological status based on diatom community - *Olga Jakovljević, Slađana Popović, Jelena Krizmanić*

Can groundwater chemistry be an explanatory variable for gradients in snails diversity in fens? Small-scale study from Shar Planina, North Macedonia - *Marija Trencheva, Ivailo Dedov, Daniela Jovanovska, Slavčo Hristovski*

Diversity and seasonal dynamics of freshwater Ostracoda (Crustacea) in Petnica (Serbia) - *Jovo Pokrajac, Tamara Karan-Žnidaršič, Srđan Stamenković*

Interactions between fish and invertebrates in the lowland area of the Sava River - *Tea Tomljanović, Maria Špoljar, Daniel Matulić, Farrukh Kattakulov*

Macroinvertebrate community structure as a strong indicator of ecosystem recovery – a case study on Kamenicka Reka River (R. North Macedonia) - *Jelena Hinić - Jordanovska, Valentina Slavevska - Stamenković, Teodora Trajkovska*

Phytoplankton response to the mass removal of black bullhead in the Ponjavica River - *Dragana Predojević, Marija Smederevac-Lalić, Marija Pećić, Gordana Subakov Simić, Milica Jaćimović*

The impact of wastewater effluent on ecological status of the Orlova River (Serbia) - *Jelena Krizmanić, Olga Jakovljević, Katarina Đoković, Katarina Stojanović, Ivana Živić*

Ultrastructural analysis of degenerative changes of spermatogonia of Salmonidae from Ohrid Lake during spermatogenesis - *Irena Tavchiovska-Vasileva*

Zoological component of periphyton developed on artificial substrate in Baračka pond (SNR, Gornje Podunavlje") – diversity and monthly dynamics - *Luka Grbović, Marija Pećić, Dragana Predojević, Tamara Karan Žnidaršič*

Discussion (10 minutes)

16.10.2022 (Sunday)

09:00 – 09:45 Plenary lecture – Saving Balkan lynx - *Dime Melovski, Aleksandar Pavlov, Andrej Gonev, Aleksandar Stojanov, Bledi Hoxha, Aleksandër Trajçe, Vasko Avukatov, Bardh Sanaja, Fatos Lajçi, Lisa Leschinski, Manuela von Arx, Gjorgje Ivanov, Gabriel Schwaderer, Annette Spangenberg, Christine Breitenmoser, Urs Breitenmoser*

Biodiversity and conservation biology
Hall – Biljana

Chairs: Mitko Karadelev, Renata Ćušterevska (Morning session)

Oral presentations: 9:45 – 13:30

Coffee break 11:00–11:15

Oral presentations (15 minutes)

Establishment of ecological networks in Serbia – methodology and field research of vascular plants and mosses - *Gordana Tomović, Goran Anačkov, Andrej Bogdanović, Bojana Bokić, Uroš Buzurović, Vladan Djordjević, Sanja Djurović, Marjan Niketić, Boris Radak, Milica Rat, Bogosav Stojiljković, Bojan Zlatković, Jovana Pantović, Marko Sabovljević*

Establishment of ecological networks (including Natura 2000) in Serbia – field studies of batracho- and herpetofauna - *Ljiljana Tomović, Tijana Vučić, Marko Anđelković, Vukašin Bjelica, Marko Maričić, Margareta Lakušić, Gorana Danon, Aleksandar Urošević, Ana Ivanović*

Activity overlap and time-spacing between the wolf (*Canis lupus* L.) and its ungulate prey in Osogovo Mtn., Bulgaria - *Nikolay Dolapchiev, Diana Zlatanova, Elitsa Popova, Petar Petrov*

Alien algae and waterfowl as their potential transporting agent in 16 Bulgarian wetlands (2019) - *Maya Stoyneva-Gärtner, Blagoy Uzunov, Boyan Michev, Georg Gärtner*

Analysis of noninvasive genetic samples from brown bears (*Usrus arctos*) from the transboundary Prespa Basin - *Andrej Gonev, Maja Jelenčič, Marjeta Konec, Špela Hočevar, Elena Pazhenkova, Olga Alexandrou, Julia Henderson, Bledi Hoxha, Olsion Lama, Dime Melovski, Aleksandar Pavlov, Ilir Shyti, Aleksandar Stojanov, Aleksandër Trajçe, Cveta Trajçe, Klaudja Koçi, Daniela Zaec, Tomaž Skrbinšek*

Assessing the use of time-lapse cameras to estimate breeding success and collect other data in the Dalmatian pelican colony, Prespa, NW Greece - *Olga Alexandrou, Ioannis Theodoropoulos, Giorgos Catsadorakis*

Avian influenza outbreak 2022 – A devastating impact on the Prespa Dalmatian pelican colony, NW Greece - *Olga Alexandrou, Myrsini Malakou, Haris Nikolaou, Giorgos Catsadorakis*

Discussion (10 minutes)

Coffee break: 11:00-11:15

Connecting the dots: Abundance estimations and turnover rate of the Balkan lynx and other mammals in lynx range countries - *Andrej Gonev, Dime Melovski, Aleksandar Pavlov, Aleksandar Stojanov, Bledi Hoxha, Aleksandër Trajçe, Bardh Sanaja, Lisa Leschinski, Manuela von Arx*

Ecological assessment on malacofauna of Lake Ohrid, Albania - *Sonja Hoxha, Sajmir Beqiraj, Elisabeth Haring, Helmut Sattmann, Michael Duda*

Fauna of the moth family Sphingidae (Insecta: Lepidoptera) in Koritniku Mountain in the Republic of Kosovo - *Pajtim Bytyçi, Ferdije Zhushi-Etemi, Edona Kabashi-Kastrati, Toni Koren*

Faunistic and population studies of freshwater turtles in North Macedonia - *Marko Maričić, Dragan Arsovski, Vukašin Bjelica, Dario Stojanovski, Edi Frcovski, Ana Golubović, Ljiljana Tomović*

GIS algorithm for extraction of *Gyps fulvus* circular thermal gliding from tracking data in Bulgaria - *Dimitar Nenov, Diana Zlatanova*

Discussion (10 minutes)

Biodiversity and conservation biology
Hall – Biljana

Chairs: Metodija Velevski, Dragan Arsovski (Afternoon session)

Oral presentations: 16:00-18:30
Poster presentations: 18:30– 20:00

Coffee break 17:45-18:00

Oral presentations (15 minutes)

National red list of fungi of North Macedonia - *Mitko Karadelev, Katerina Rusevska, Slavica Tofilovska*

New data for the 10 rare plant species of the flora of the Republic of North Macedonia - *Vlado Matevski, Mitko Kostadinovski, Renata Ćušterevska, Olivera Matevska, Sara Cvetanoska, Cvetanka Cvetkoska, Angela Ivanova*

New ultramafics findings and new species in the flora of Montenegro - *Snežana Vuksanović, Gordana Tomović, Marjan Niketić, Uroš Buzurović, Snežana Dragićević, Ksenija Jakovljević, Ilinka Ćetković*

Rodent hepatic helminths as components of hidden biodiversity - *Olivera Bjelić Čabrilo, Borislav Čabrilo, Milan Miljević, Božana Tošić, Branka Bajić, Marija Rajičić, Ivana Budinski, Jelena Blagojević*

The biodiversity of Polish fungi – the digital and molecular data related transformation - *Julia Pawłowska, Alicja Okrasińska, Sebastian Piskorski, Mateusz Wilk, Małgorzata Ruszkiewicz-Michalska, Izabela Kałucka, Anna Kujawa*

The fish assemblage of Black Drini River is rapidly changing – what will be overleft after entire damming? - *Spase Shumka, Stamatis Zogaris, Radek Šanda, Laura Shumka, Linda Grapci-Kotori, Berat Halilaj*

The novelties in Croatian bryology - *Vedran Šegota, Antun Alegro, Anja Rimac, Marija Bučar*

The status of the Prespa population of greylag geese *Anser anser* in Prespa National Park, Greece - *Giorgos Catsadorakis, Berend Voslamber, Annita Logotheti*

Toxigenic cyanoprokaryotes in 4 lakes and 12 reservoirs of Bulgaria (2019) - *Blagoy Uzunov, Georg Gärtner, Maya Stoyneva-Gärtner*

Kosovo - new regional hotspot for threatened amphibians and reptiles - *Bogoljub Sterijovski*

Discussion (10 minutes)

Coffee break: 17:45-18:00

Poster presentations

A new insight into the presence of five freshwater gastropod species considered as rare in Serbia - *Vukašin Gojšina, Vanja Marković, Tamara Karan Žnidaršič*

An overview of the conservation efforts to save the Balkan Egyptian vulture population. A flyway approach - *Victoria Saravia-Mullin, Volen Arkumarev, Safak Aslan, Kristi Bashmili, Taulant Bino, Anastasios Bounas, Maher Dayyoub, Vladimir Dobrev, Hana ElSafoury, Umberto Gallo-Orsi, Mohammed Garba Boyi, Nabegh Ghazal Asswad, Sam T. Ivande, Ivailo Klisurov, Elzbieta Kret, Shiiwua A. Manu, Solomon Mengistu, Ozlem Midik, Razack Moussa Zabeirou, Alex Ngari, Joseph Onoja, Steffen Oppel, Maher Osta, Nenad Petrovski,*

Cloe Pourchier, Tareq Qaneer, Alazar Ruffo, Louis Junior Saad, Mohammed Shobrak, Theodora Skartsi, Million Tesfaye, Dimitar Todorov, Jakob Tukai, Metodija Velevski, Zydjon Vorpsi, Jenny Weston, Xhemal Xherri, Stoyan C. Nikolov

Aquatic macroinvertebrates of smaller Pannonian watercourses. Neglected habitats worth of exploring? - *Vanja Marković, Vukašin Gojšina, Tamara Karan Žnidaršič, Milenka Božanić, Anđelina Tatović, Katarina Stojanović, Ivana Živić*

Biodiversity conservation through paternity analysis in indigenous sheep populations - *Kocho Porchu, Vladimir Dzabirski, Dragoslav Kocevski, Gjoko Bunevski, Zoran Popovski*

Distribution and preliminary estimation of the population size of the European Roller (*Corracias garrulus*) in the plains of Skopje Valley - *Ana Nikolovska, Slave Nakev, Metodija Velevski*

Brown bear dens in the wild and captivity: implication for conservation and animal welfare - *Vladimir Todorov, Venislava Spasova, Katerina Zareva-Simeonova, Daniela Simeonovska-Nikolova, Nikolay Dolapchiev, Raycho Ganchev*

Caddisflies (Insecta: Trichoptera) from the upper part of Kriva Reka River watershed (Osogovo Mountain, Republic of North Macedonia) - *Jelena Hinić - Jordanovska, Valentina Slavevska - Stamenković, Halil Ibrahimi, Mladen Kučinić, Astrit Bilalli, Ajten Rušiti*

Caves as a reservoir for novel and reoccurring zoonoses - ecological monitoring and metagenomic analysis in real time - *Nikolay Simov, Stefan Panaiotov, Mario Langourov, Rostislav Bekchiev, Nedko Nedyalkov, Nia Toshkova, Stanimira Deleva, Vladimir Tolchkov, Ognyan Mikov, Rumiana Nenova, Yordan Hodjev, Borislava Tsafarova*

Comparative analysis of the microbiota of syntopic lizard species from a model territory in Western Bulgaria - *Irina Lazarkevich, Stephan Engibarov, Simona Mitova, Steliyana Popova, Nikola Stanchev, Emiliya Vacheva*

Conservation value of the endemic relict *Pinus peuce* and *Pinus heldreichii* forests for Carabidae and Pselaphinae (Insecta: Coleoptera) beetle communities at a high altitude in Bulgaria - *Rostislav Bekchiev, Rumyana Kostova*

Contribution to the knowledge of beetle fauna (Coleoptera) in the Mariovo Region - *Aleksandra Cvetkovska-Gjorgjievska, Slavčo Hristovski, Dana Prelić, Angela Taseska, Viktorija Bošeska, Teodora Trajkovska*

Contribution to the knowledge of fish fauna from Crna River Basin - *Milica Ristovska, Katerina Rebok, Linda Grapci-Kotori, Astrit Bilalli, Donard Geci*

Dietary habits of the Brown bear (*Usrus arctos*) in the Transboundary Prespa Basin - *Andrej Gonev, Aleksandar Pavlov, Dime Melovski, Olsion Lama, Ilir Shyti, Olga Alexandrou, Julia Henderson, Aleksandar Stojanov, Bledi Hoxha, Aleksandër Trajçe, Cveta Trajçe, Daniela Zaec, Giorgos Catsadorakis*

Faunistic records of Coleoptera in North Macedonia - *Aleksandra Cvetkovska-Gjorgjievska, Slavčo Hristovski, Dana Prelić*

First record of fish species composition of river Raec from R. North Macedonia - *Milica Ristovska, Katerina Rebok, Aleksandra Cvetkovska-Gjorgjievska*

Floristic and habitat diversity of Hrastovička gora (Petrinja city area, Croatia) - *Marija Bučar, Sven D. Jelaska*

Jumping plant lice of the genus *Colposcenia* Enderlein, 1929 (Hemiptera, Psylloidea) and their distribution in Bulgaria - *Monika Pramatarova, Igor Malenovský, Ilia Gjonov*

Lithophytic algae in Bulgaria - a 'white spot' in the biodiversity of South-Eastern Europe - *Miroslav Androv, Kristian Ivanov, Blagoy Uzunov, Maya Stoyneva-Gärtner*

Living algal collection of Sofia University "St. Kliment Ohridski" (ACUS) and its role for biodiversity conservation: case of streptophyte algae - *Kristian Ivanov, Miroslav Androv, Maya Stoyneva-Gärtner, Blagoy Uzunov*

Macromycetes diversity of Sharr Mounatins in Kosovo - *Qëndrim Ramshaj, SlavicaTofilovska, Katerina Rusevska, Mitko Karadelev*

Mediterranean islands under the impact of artificial light at night - *Mykyta Peregrym, Erika Pénzesné Kónya, Mariia Savchenko*

Mycodiversity in the coniferous forests on the Shar Planina Mountain - *Hasime Jashari, Slavica Tofilovska, Mitko Karadelev, Katerina Rusevska*

Natura 2000 species *Lucanus cervus, Morimus asper funereus, Cerambyx cerdo* on Jablanica Mountain and Mavrovo National Park as part of the project “Diversity and distribution of saproxylic coleopteran fauna on Jablanica Mountain and the river banks of Crn Drim and Radika” - *Angela Taseska, Srna Majstorovik, Edi Frcovski, Sanida Ramadanoska, Aleksandra Cvetkovska-Gjorgjievska, Dana Prelić*

New data regarding the presence of *Gnorimus variabilis* on Jablanica Mountain (R. North Macedonia) - *Angela Taseska, Srna Majstorovik, Edi Frcovski, Sanida Ramadanoska, Aleksandra Cvetkovska-Gjorgjievska, Dana Prelić*

New orchid taxa for North Macedonia - *Boris Radak, Slavčo Hristovski, Vlado Matevski, Goran Anačkov*

Noteworthy floristic records from the steppe-like area in central North Macedonia - *Aco Teofilovski, Dejan Mandžukovski*

On the alien invasive spiders from Kosovo (Arachnida, Araneae) - *Donard Geci, Halil Ibrahimi, Maria Naumova, Astrit Bilalli, Milaim Musliu, Linda Grapci-Kotori, Agim Gashi*

Plant species from the IUCN Red List in the Struga swamp - *Angelina Stojkoska, Renata Ćušterevska, Mitko Kostadinovski, Cvetanka Cvetkoska, Sara Cvetanoska, Vlado Matevski*

Restoring ecosystems by eliminating alien species on rocky islets of Aegean (Greece) - *Christos-Stefanos Profitis, Georgios Fotiadis*

Review of Natura 2000 beetles in North Macedonia - *Slavčo Hristovski, Aleksandra Cvetkovska-Gjorgjievska, Dana Prelić*

Revision of the *Potamophylax winneguthi* Species Cluster (Trichoptera: Limnephilidae) from the Balkan Peninsula with the description of three new species - *Halil Ibrahimi, Astrit Bilalli, Agim Gashi, Linda Grapci-Kotori, Valentina Slavevska-Stamenković, Donard Geci, Milaim Musliu, Jelena Hinič*

Saproxylic beetles as bioindicators of forests with high nature values in North Macedonia - *Aleksandra Cvetkovska-Gjorgjievska, Slavčo Hristovski, Dana Prelić*

Studies on functional morphology and vibroacoustics of *Messor* ants in Bulgaria - *Albena Lapeva-Gjonova, Ilia Gjonov, Rumyana Kostova, Rostislav Bekchiev, Muhammed Mohammed*

The composition and abundance of the macroinvertebrate fauna in the Leqinat Lake, National Park Bjeshkët e Nemuna, Kosovo - *Astrit Bilalli, Halil Ibrahimi, Linda Grapci-Kotori, Milaim Musliu, Donard Geci, Agim Gashi*

The first finding of a Habitats directive species *Vertigo angustior* Jeffreys, 1830 (Mollusca, Gastropoda, Vertiginidae) from the Republic of North Macedonia - *Ivajlo K. Dedov, Slavčo Hristovski, Trajche Mitev*

The population of the Egyptian vulture (*Neophron percnopterus*) in North Macedonia has continued to decline - *Nenad Petrovski, Slave Nakev, Metodija Velevski*

Towards the checklist of the orchids of Montenegro - *Boris Radak, Bojana Bokić, Predrag Miljković, Jovan Peškanov, Milica Rat, Aleksa Vlku, Jelena Beloica, Goran Anačkov*

Annotated checklist of dragonflies and damselflies (Odonata) fauna of the Republic of North Macedonia - *Despina Dinova, Miloš Jović*

Towards solving the mystery of the long lost endemite *Graecoanatolica macedonica* Radoman & Stankovic, 1979 in Dojran Lake - *Jelena Hinić Jordanovska, Valentina Slavevska-Stamenković, Irina Shoreva, Nataša Stefanovska, Danijela Mitić-Kopanja*

Stoneflies (Insecta: Plecoptera) from the aquatic ecosystems on Shar Mountain (R. North Macedonia) - *Ajten Rushiti, Valentina Slavevska-Stamenković, Halil Ibrahimi, Gazmend Iseni, Astrit Bilalli, Xhezair Abdija, Jelena Hinić Jordanovska*

Diversity of genus *Genea* Vittadini in the Republic of North Macedonia - *Slavica Tofilovska, Katerina Rusevska, Tome Jovanovski, Mitko Karadelev*

Discussion (10 minutes)

Ecological education
Hall – Labino

Chairs Katerina Rusevska, Maja Jordanovska

Oral presentations 09:45 – 10:15
Poster presentations 10:30 – 12:00

Coffee break: 11:00 - 11:15

Oral presentations (15 minutes)

Biodiversity literacy - *Boža Janžekovič, Franc Janžekovič*

Challenges in translating new IUCN standards from English to Albanian - *Iris Klosi, Ergys Bezhani*

Discussion (10 minutes)

Coffee break: 11:00-11:15

Poster presentations

Employment of citizen science to mitigate the conflict between urban hooded crows and people - *Ivana Novčić, Tamara Karan Žnidaršič, Slobodan Knežević, Aleksa Vukićević, Dimitrije Radišić*

Environmental education in municipality of Thessaloniki: the views of elementary schools students regarding the conservation of water - *Stefanos Tsiaras*

Is ecology taught enough in Macedonian schools? A study on the representation of topics from ecology in the national curriculum high school education - *Aleksandar Aleksovski, Katerina Rusevska*

Reasons for generation and opportunities to reduce food waste and loss in the Republic of North Macedonia - *Dushica Santa, Ivana Velinova, Sonja Srbinovska, Zvezda Bogevska, Vladimir Dzabirski*

The contribution of urban green to the formation of environmental ethics - *Konstantinos Katsinikas*

The role of the environmental education in sustainable development: the case of the Greek Army Park - *Vasiliki Lazaridou, Konstantinos Katsinikas*

Implementation of the 5E Model in the biology classes in Macedonian schools - *Katerina Rusevska, Slavica Tofilovska, Marina Stojanovska*

Discussion (10 minutes)

Environmental change
Hall – Labino

Chairs: Sonja Ivanovska, Marija Trencheva

Oral presentations 16:00 – 16:30
Poster presentations 16:45 – 18:30

Coffee break: 17:45 - 18:00

Oral presentations (15 minutes)

Enhanced ecosystem service trends in Lesser Prespa Lake, Greece - *Irene Koutseri, Julia Henderson*

Morphological traces of microevolution in diatoms from the fossil record of ancient Lake Ohrid - *Dušica Zaova, Elena Jovanovska, Aleksandra Cvetkoska, Bánk Beszteri, Zlatko Levkov*

Poster presentations

Amount and composition of waste in the Peja region, Republic of Kosovo - *Milaim Musliu, Astrit Bilalli, Halil Ibrahimi, Nusret Berisha, Donard Geci, Linda Grapci-Kotori*

Cattle breeding despite the new Green Deal and climate changing - *Gjoko Bunevski, Vesna Gantner, Vladimir Dzabirski, Andrej Mergedus, Srecko Gjorgievski, Dragoslav Kocevski, Koco Porcu*

Enzyme activity and gene expression of key carbohydrate-related enzymes and HSP70 in rats - acclimation to moderate heat - *Biljana Miova, Suzana Dinevska-Kjovkarovska, Elena Rafailovska*

Lessons from the distant past: what can fossil reptile finds teach us about coping with climate change - *Dragana Đurić, Aleksa Rončević, Dragana Cvetković*

Discussion (10 minutes)

Coffee break: 17:45-18:00

Natural resources management
Hall – Labino

Chairs – Daniela Jovanovska, Renata Ćušterevska
Poster presentations 17:00 - 18:30

Coffee break: 17:45 – 18:00

Poster presentations

Vojvodina's meadow vegetation - Cross sectoral awareness of its ecosystem services potential - *Sara Pavkov, Mirjana Ćuk, Ružica Igić, Miloš Ilić, Dragana Vukov, Milica Velimirović*

Characteristics of the Close-to-nature silviculture concept, as a perspective model for improved forest management in the protected areas in Republic of North Macedonia - *Nikolcho Velkovski, Cvetan Nikolovski*

Visual landscapes - the nature contribution background of landscape appreciation - *Daniela Jovanovska, Vasko Avukatov, Bogoljub Sterijovski, Ruth D. Swetnam, Fiona S. Tweed*

Discussion (10 minutes)

Coffee break: 17:45-18:00

17.10.2022 (Monday)

09:00 – 9:45 Plenary lecture - Rotifers in deep vs. shallow lakes of Balkan Peninsula
Maria Špoljar, Tea Tomljanović, Orhideja Tasevska, Spase Shumka

Symposium of Prespa Lakes
Hall – Biljana

Chairs: Spase Shumka, Orhideja Tasevska

Oral presentations 09:45 – 10:35
Poster presentations 10:35 – 11:15

Coffee break 11:15 - 11:30

Introductory lecture (20 minutes)

Introducing Flora Prespae Database - *Fanourios-Nikolaos Sakellarakis, Aris Manolopoulos, Erwin Bergmeier, Yiannis Kazoglou, Michael Vrahnakis, Margarita Arianoutsou, Myrsini Malakou, Arne Strid, Giorgios Fotiadis*

Oral presentations (15 minutes)

Biomass and chemical composition of wet meadows in Prespa watershed (North Macedonia) - *Lazar Nikolov, Marija Trencheva, Dragana Pelikudovska, Daniela Jovanovska, Daniela Zaec, Slavčo Hristovski*

Climate change impact to Dalmatian pelican breeding ecology: observations from a 40-year study in Prespa, northern Greece - *Giorgos Catsadorakis, Olga Alexandrou*

Poster presentations

Prespa's Green and Blue LifeLines: A holistic experiment in expanding wetland landscape management to disregarded riparian zones in Greek Prespa - *Myrsini Malakou, Giorgos Catsadorakis*

Preliminary estimates of breeding bird densities of the meadows in a stage of succession around Greater Lake Prespa - *Metodija Velevski*

Discussion (10 minutes)

Coffee break: 11:15-11:30

Symposium of biology students
Hall – Labino

Chairs Edi Frcovski, Lina Gegoska

Oral presentations 9:45 – 11:15
Poster presentations 11:15 – 12:15

Coffee break: 11:15 - 11:30

Oral presentations (15 minutes)

The chelonians of park-forest Gazi Baba - *Edi Frcovski, Dario Stojanovski, Nikola Ivanov, Aleksandar Minev, Dragan Arsovski*

Contribution to the knowledge of the flora, fauna and fungi of Kozhuf Mountain - *Edi Frcovski, Ana Varelova, Aleksandar Minev, Lina Gegoska, Kristijan Jakimovski, Sofi Mladenova, Anastasija Videska, Iskra Stojanova, Mila Petrusevik, Hristina Naumovska, Slobodan Kutanoski*

Distribution of ferns (Pteridophyta) on Kozhuf Mountain, R. N. Macedonia - *Ana Varelova, Lina Gegoska*

Evaluation and enumeration of the microbial community associated with water quality of the glacial lakes of Pelister National Park, North Macedonia - *Nikola Radmanovik, Marija Brsakoska, Elena Usta Petrova, Hristijan Zlatanovski, Sofija Kostandinovska, Tamara Talevska, Dzoko Kungulovski, Natalija Atanasova-Pancevska*

Comparative analyses of two sampling points of thermal mineral water from the spa complex Negorci, North Macedonia - *Ognen Boskovski, Meri Kokić, Sara Veleska, Sara Kocevska, Edi Frcovski, Nikola Radmanovik, Sofija Kostandinovska, Dzoko Kungulovski, Natalija Atanasova-Pancevska*

Results of research-educational camp "Tara 2021" - *Ljubomir Jovanović, Matija Zloporubović*

Poster presentations

Update to the distribution and valorization of amphibians and reptiles on Kozhuf Mountain - *Aleksandar Minev, Nikola Ivanov, Dario Stojanovski, Edi Frcovski, Dragan Arsovski*

Distribution of Poales (Poaceae, Cyperaceae, Juncaceae, Typhaceae) on Kozhuf Mountain, R. N. Macedonia - *Ana Varelova, Lina Gegoska*

Conservation of endemic plant species of Allchar - *Lina Gegoska, Renata Ćušterevska, Cvetanka Cvetkoska, Sara Cvetanoska, Angela Ivanova, Ana Varelova, Edi Frcovski, Aleksandar Minev*

Insights into diatom biodiversity, distribution and ecology of Ilinska and Plakenska Mountains - *Hristina Naumovska, Dušica Zaova, Anastasija Videska, Hristina Kochoska, Danijela Mitic Kopanja, Zlatko Levkov*

Wet meadows in Prespa: Lake Prespa's buffer from artificial fertilizers - *Dragana Pelikudovska, Sara Jovanovska, Megi Dochovska, Marija Trencheva, Slavčo Hristovski*

Distribution of orchids on Kozhuf Mountain - *Vanja Tasevska, Ana Varelova*

Discussion (10 minutes)

Coffee break: 11:15 – 11:30

Excursion 12:30 – 16:30

Symposium on Nature conservation in Bregalnica watershed
Hall – Biljana

Chairs Nikolčo Velkovski, Marjana Shushlevska

Oral presentations 17:00 -18:20
Poster presentation 18:30 – 19:45

Coffee break: 16:45 – 17:00

Introductory lecture (20 minutes)

From theory to practice: Fens' monitoring in Protected Landscape "Osogovski Planini" in North Macedoniam - *Marija Trencheva, Despina Dinova, Daniela Jovanovska, Angela Angelovska, Violeta Boshkovska, Sara Krstevska, Slavčo Hristovski*

Oral presentations (15 minutes)

Adopting a Landscape Approach to reconcile competing nature conservation and socio-economic development objectives (case study Bregalnica river basin, North Macedonia) - *Marjana Shushlevska, Katerina Atanasovska, Cvetan Nikolovski, Jasminka Pashaliska Andonovska, Katerina Ivanovska, Jane Carter*

Developing scenarios for establishing protected areas in Bregalnica Watershed (East Planning Region, Republic of North Macedonia) - *Despina Dinova, Robertina Brajanoska, Marjana Shushlevska, Katerina Atanasovska, Slavčo Hristovski*

The effectiveness of using integrated approach and different communication tools to enhance awareness for nature conservation and environment protection in Bregalnica region - *Jasminka Pashaliska Andonovska, Cvetan Nikolovski, Katerina Atanasovska, Bogoljub Sterjovski, Katerina Ivanovska, Marjana Shushlevska*

Mainstreaming the social sciences in nature conservation – case study Bregalnica region - *Bogoljub Sterijovski, Robertina Brajanoska, Jasminka Pashaliska Andonovska, Katerina Atanasovska, Marjana Shushlevska*

Discussion (10 minutes)

Poster presentations

Birds of Maleshevo, Maleshevo Mountains and Vlaina Mt. - *Slave Nakev, Nenad Petrovski, Danka Uzunova, Metodija Velevski*

Ecology, biology and distribution of False Indigo bush along the lower flow of River Bregalnica - *Svetlana Pejovikj, Nikolcho Velkovski, Slave Nakev, Elena Minova, Lazar Nikolov*

Structural characteristics of the White poplar riparian belt along the lower flow of River Bregalnica - *Svetlana Pejovikj, Nikolcho Velkovski, Slave Nakev, Elena Minova*

Field surveys indicate that Plačkovica Mountain qualifies as “Special Protected Area” for specialized forest bird species - *Metodija Velevski, Nikolai Petkov, Mihail Iliev, Slave Nakev*

Integrated approach in introducing sustainable beekeeping in and around protected areas in Bregalnica Region - *Katerina Ivanovska, Cvetan Nikolovski, Jasminka Pashaliska Andonovska, Katerina Atanasovska, Marjana Shushlevska*

Local engagement in nature conservation through small projects scheme in Bregalnica Region - *Jasminka Pashaliska Andonovska, Cvetan Nikolovski, Katerina Atanasovska, Lidija Micevska, Marjana Shushlevska*

Generating a model for Regional Forest Development Plan as a strategic guide for sustainable forest management at landscape level in North Macedonia - *Cvetan Nikolovski, Marija Sterjovska, Jürgen Blaser, Jelena Marković, Marjana Shushlevska*

Mainstreaming biodiversity and integrated forest management in the curriculum of the Hans Em Faculty of Forest Sciences, Landscape Architecture, and Environmental Engineering in North Macedonia - *Cvetan Nikolovski, Marija Sterjovska, Jürgen Blaser, Jelena Marković, Marjana Shushlevska*

Stand structure and dynamics of oak coppice forests in North Macedonia – challenges and potentials for sustainable management - *Marija Sterjovska, Oliver Gardi, Nikolcho Velkovski, Lydia Afriyie-Kraft, Torben Claas*

Diversity, distribution and conservation concerns of dragonflies (Insecta: Odonata) on Osogovo Mountains - *Despina Dinova, Milen Marinov*

Road map towards successful establishment of protected areas in North Macedonia - Case study: Osogovo Mountains - *Despina Dinova, Marjana Shushlevska, Robertina Brajanoska, Slavčo Hristovski*

Stakeholders involvement in definition and management of Protected landscape Maleshevo, North Macedonia - *Sara Krstevska, Despina Dinova, Jasminka Andonovska Pashaliska, Mare Basova, Robertina Brajanoska, Marjana Shushlevska*

Synergies between biodiversity conservation and socioeconomic development in Protected landscape “Osogovo Mountains” - *Ivana Vuchkova*

Birds of the potential Special Protection Area “Lower Bregalnica Valley” - *Metodija Velevski, Slave Nakev, Nikolai Petkov, Mihail Iliev, Nenad Petrovski, Vlasta Škorpíková, Václav Prášek, Mojmír Dostál, Bratislav Grubač*

Birds of Osogovo Mountains - *Metodija Velevski, Vlasta Škorpíková, Václav Prášek, Mojmír Dostál, Zdeněk Tunka, Nenad Petrovski, Mladen Pop Trajkov, Jovan Andevski, Slave Nakev, Bratislav Grubač*

Discussion (10 minutes)

Coffee break: 16:45 – 17:00

Symposium on protected areas
Hall – Labino

Chairs Slavčo Hristovski, Katerina Atanasovska

Oral presentations: 18:05 - 18:20
Poster presentations: 18:30 – 19:45

Coffee break 16:45 – 17:00

Oral presentations (15 minutes)

Use of ecosystem services concept in order to raise new methods for improving the management and self-financing mechanisms of protected areas in Macedonia. Case study of Vevcanski Izvori Monument of Nature - *Natalija Melovska, Marija Trencheva, Katerina Atanasovska, Vasko Avukatov, Slave Nakev, Lazar Nikolov, Bogoljub Sterijovski, Silvie Campaign*

Poster presentations

Histological studies as potential biomarkers of pollution on some localities of Lake Ohrid - *Lidija Velkova-Jordanoska*

Opportunities and challenges in sustainable development and nature protection on site - The opinion of those left behind – Jablanica Mt.- *Robertina Brajanoska, Bogoljub Sterijovski, Ivana Vuchkova, Despina Dinova*

Lessons learned from the Management Effectiveness Tracking Tool (METT) application in the protected areas of North Macedonia - *Konstantin Zdraveski, Despina Dinova, Andon Bojadzi, Sara Krstevska, Angela Taseska, Kliment Nanev, Dejan Dimidzijevski, Robertina Brajanoska*

Discussion (10 minutes)

Coffee break: 16:45 – 17:00

18.10.2022 (Tuesday)

Air, water and soil pollution
Hall – Biljana

Chairs – Trajče Stafilov, Elizabeta Veljanovska-Sarafilovska

Oral presentations: 09:00 – 10:35
Poster presentations: 11:35 – 12:30

Coffee break: 11:00 – 11:15

Introductory lecture (20 minutes)

Mining and metallurgical waste as potential secondary sources of metals in the West Balkan region - *Robert Šajn, Ivica Ristović*

Oral presentations (15 minutes)

Adaptive responses of isolated fungal strains to Hexachlorocyclohexane as potential avenues for sustainable bioremediation - *Marija Todorovska Ivkovikj, Nikola Radmanovikj, Tijana Lazova, Nikola Lazov, Sofija Kostandinovska, Natalija Atanasova-Pancevska, Dzoko Kungulovski*

Degradation of methyl orange by electro-Fenton-like process using various transition metal ions as catalysts - *Flamur Sopaj, Foliart Rexha, Ejona Hoxhaj, Emmanuel Mousset, Ramë Vataj, Fetah I. Podvorica*

Distribution and statistical analysis of chemical elements in soil from the Republic of Kosovo - *Musaj Paçarizi, Granit Kastrati, Flamur Sopaj, Trajče Stafilov, Krste Tašev, Robert Šajn*

Fungal communities and their interactions with bacteria in contaminated soils - *Alicja Okrasińska, Maria Majchrowska, Beniamin Abramczyk, Julia Pawłowska*

Investigation of potentially toxic elements in honey, bee pollen, and soil of Prishtina region in Republic of Kosovo - *Granit Kastrati, Flamur Sopaj, Krste Tašev, Trajče Stafilov, Robert Šajn, Musaj Paçarizi*

Microbial ecology of undisturbed and contaminated soils in North Macedonia - *Sofija Kostandinovska, Nikola Radmanovikj, Ognen Boskovski, Natalija Atanasova-Pancevska, Dzoko Kungulovski*

Discussion (10 minutes)

Coffee break: 11:00-11:15

Poster presentations

Anthropogenic influence on water quality of River Crn Drim - *Lenče Lokoska, Elizabeta Veljanoska-Sarafiloska, Suzana Patčeva, Orhideja Tasevska, Goce Kostoski*

Assessment of highway heavy metals pollution: analyses of soils and plants (alfalfa, wheat and rapeseed) - *Ana Stojanovska, Marija Trencheva, Daniela Jovanovska, Slavčo Hristovski*

Comparison of water quality from the littoral zones of Lakes Ohrid and Prespa during the summer season - *Elizabeta Veljanoska-Sarafiloska, Lence Lokoska, Orhideja Tasevska*

Content of chemical elements in honey and pollen in the region of gjilan, Republic of Kosovo – *Granit Kastrati, Flamur Sopaj, Krste Tašev, Trajče Stafilov, Robert Šajn, Musaj Paçarizi*

Determination of genotoxicity in waters from the region of Tetovo - *Slobodan Tofiloski, Gordana Dimeska, Lenka Cvetanovska, Slavčo Hristovski, Ivana Dilevska, Marija Kostovska*

Essential and potentially toxic elements in honey from North Macedonia - *Katerina Bačeva Andonovska, Trajče Stafilov, Sajtos Zsófi, Krste Tašev*

Investigation of Tl, Hg, and As, atmospheric deposition in the Kosovo area by terrestrial mosses method - *Musaj Paçarizi, Trajče Stafilov, Robert Šajn, Krste Tašev, Flamur Sopaj*

Preliminary qualitative list of epiphytic lichens to approximate estimating air quality in urban centers of the Balkans - *Slaviša Stamenković, Svetlana Ristić*

Forestry and Agriculture
Hall – Labino

Chairs – Nikolčo Velkovski, Vladimir Dzabirski

Oral presentation: 09:00 – 09:20
Poster presentations: 09:30 – 10:30

Coffee break: 11:00 - 11:15

Oral presentation (15 minutes)

Evidence of induced mortality from biotic and abiotic factors in *Abies cephalonica* forests of Evrytania, Central Greece - *Palaiologos Palaiologou, Giannis Karagiannis, Georgios Fotiadis*

Poster presentations

Autochthonous plant species of Evrytania Prefecture (Central Greece) and their uses - *Vasiliki Kaltsi, Georgios Fotiadis*

Health assessment of celery and parsley related to cadmium soil pollution through potentially toxic elements accumulation - *Slobodanka Pajević, Nataša Nikolić, Danijela Arsenov, Milan Borišev, Milan Župunski, Milica Popić*

Trace elements in vegetables produced in conventional vs. organic soil system: accumulation, translocation and health risk - *Nataša Nikolić, Slobodanka Pajević, Danijela Arsenov, Milan Borišev, Milan Župunski*

Research on the development of crown of different types of trees in order to achieve optimal forest cover in the region of Maleshevo - *Cvetan Nikolovski, Nikolcho Velkovski, Bozin Trendafilov*

Variability in rooting and survival of white poplar cuttings among four genotypes - *Dušan Igić, Dragica Vilotić, Milan Borišev, Dragana Vukov, Mirjana Ćuk, Branislav Kovačević, Dragica Stanković, Miloš Ilić*

Pre-breeding assessment of Macedonian wheat germplasm diversity and yielding potential - *Sonja Ivanovska, Mirjana Jankulovska, Dane Boshev, Nadica Sandeva Atanasova*

Discussion (10 minutes)

Coffee break 11:00 – 11:15

Closing of the congress 13:00