The 21st European Congress of Herpetology

Belgrade, Serbia 5th-9th September 2022

Program & Book of Abstracts

Belgrade 2022

Institute for Biological Research “Siniša Stanković”
National Institute of Republic of Serbia
University of Belgrade, Serbia

PROGRAM & BOOK OF ABSTRACTS

21st European Congress of Herpetology

September 5th-9th, 2022
Belgrade

PUBLISHER
Institute for Biological Research “Siniša Stanković” – National Institute of Republic of Serbia, University of Belgrade, Serbia

FOR PUBLISHER
Mirjana Mihailović, director of the Institute for Biological Research “Siniša Stanković” – National Institute of Republic of Serbia, University of Belgrade

EDITORS
Jelka Crnobrnja-Isailović
Tanja Vukov
Tijana Vučić
Ljiljana Tomović

CONGRESS LOGO DESIGN
Dejan Brajović

BOOK COVER
Tanja Vukov, Marko Mirč

EDITION
Available electronically only

PLACE AND YEAR OF PUBLICATION
Belgrade, 2022

ISBN
978-86-80335-19-3

……

Leading Congress Organiser

Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia (IBISS), University of Belgrade, Serbia

Congress President

Jelka Crnobrnja-Isailović, Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia, University of Belgrade, Serbia; Department of Biology and Ecology, Faculty of Science and Mathematics, University of Niš, Serbia

Scientific Committee

Jelka Crnobrnja-Isailović, Serbia; Tanja Vukov, Serbia; Ljiljana Tomović, Serbia; Ana Ivanović, Serbia; Natalya Ananyeva, Russia; Aaron Bauer, USA; Olivera Bijelić-Čabrilo, Serbia; Miguel A Careterro, Portugal; Dan Cogalniceanu, Romania; Claudia Corti, Italy; Dragana Cvetković, Serbia; Milena Cvijanović, Serbia; Dragana Đurić, Serbia; Gentile Francesco Ficetola, Italy; Uwe Fritz, Germany; Ana Golubović, Serbia; Dušan Jelić, Croatia; Ulrich Joger, Germany; Antigoni Kaliontzopoulou, Portugal; Petros Lymberakis, Greece; Katarina Ljubisavljević, Serbia; Borislav Naumov, Bulgaria; Kurtulus Olgun, Turkey; Nataša Tomašević-Kolarov, Serbia; Aleksandar Urošević, Serbia; Judit Vörös, Hungary; Ben Wielstra, The Netherlands; Stefan Zamfirescu, Romania; Mathieu Denoël, Belgium

Local Organizing Committee

Jelka Crnobrnja-Isailović; Tanja Vukov; Ljiljana Tomović; Olivera Bijelić-Čabrilo; Imre Krizmanić; Nenad Labus; Sonja Nikolić; Rastko Ajtić; Ana Paunović; Dragana Stojadinović; Tijana Vučić; Marko Anđelković; Maja Ajduković; Jelena Ćorović; Bogdan Jovanović; Marko Mirč; Danko Jović; Vukašin Bjelica; Marko Maričić; Ana Kijanović; Aleksandar Simović

Secretariat

Tijana Vučić, Marko Mirč

Herp Photos

Aleksandar Urošević

Organizers of the 21st European Congress of Herpetology Belgrade, Serbia

5th – 9th September 2022

https://www.ibiss.bg.ac.rs/

https://www.seh-herpetology.org/

Srpsko Herpetološko Društvo
"Milutin Radovanović"

https://www.shdmr.org/

https://www.bio.bg.ac.rs/

https://www.pmf.uns.ac.rs/

https://www.pmf.kg.ac.rs/

https://www.pmf.ni.ac.rs/

https://www.pmf.pr.ac.rs/

Природњачки музеј
Београд

https://nhmbeo.rs/

Poster presentation

Phylogeographic substructuring of the common frog (*Rana temporaria*) in Serbia

Ilić M.[1,*], Jovanović B.[2], Stamenković G.[3], Bugarski-Stanojević V.[3], Paunović M.[1], Crnobrnja-Isailović J.[2,4]

[1]Institute for Biological Research "Siniša Stanković" National Institute of Republic of Serbia, University of Belgrade, Department of Hydroecology and Water Protection, Belgrade, Serbia

[2]Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia, University of Belgrade, Department of Evolutionary Biology, Belgrade, Serbia

[3]Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia, University of Belgrade, Department of Genetic Research, Belgrade, Serbia

[4]University of Niš, Faculty of Science and Mathematics, Department of Biology and Ecology, Niš Serbia

*Corresponding author (e-mail): Marija Ilić (marija.ilic@ibiss.bg.ac.rs)

The common frog (*Rana temporaria* Linnaeus, 1758) is one of the most widespread and abundant amphibians in Europe, except in the southern parts of the continent, where distribution is apparently fragmented. It has the greatest genetic variability of all western Palearctic brown frogs and it is extremely variable in morphology and ecological preferences, also. The Republic of Serbia is a country of particular interest in terms of amphibian conservation because of the genetically and morphologically diverse populations of several amphibian species.

We analysed nucleotide variability of mitochondrial DNA sequences of partial MT-CYTB gene (461 bp) of 27 specimens of *R. temporaria* species. Samples (eggs and tail tips of adult individuals) were collected in two periods, 1986-2007 and 2013-2017, in 14 localities in Serbia. The analyses revealed nine different haplotypes separated into two main clusters: north-eastern and eastern (localities Bela Crkva, Grza, Bigar, Đerdap, Stara planina) and central, west, south-western, and south-eastern Serbia (localities Jagodnja, Lučani, Zlatibor, Goč, Kopaonik, Prokletije, Šar planina, Oštrozub, and Vlasina). Lučani and Grza populations had two different haplotypes each.

Our results confirmed previous findings that the common frog shows phylogeographic substructuring. The existence of two genetically diverged population groups on the territory of Serbia suggests that these populations should be adequately protected in terms of the conservation of their breeding places and suitable terrestrial habitats. In Serbia, *R. temporaria* habitats are currently not only fragmented but also under intensive anthropogenic pressure, due to intensive urbanization, particularly in the mountain areas and the promotion of non-sustainable tourism, which makes them highly vulnerable. Therefore, there is a need for more precise data about species' phylogeny and distribution, both at the national and regional level, to define conservation priorities in the near future.