

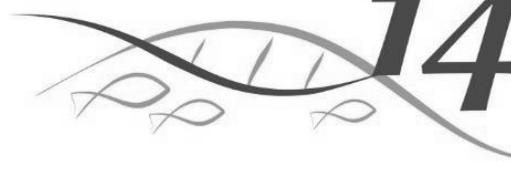


Hrvatsko biološko društvo
SOCIETAS BIOLOGORUM CROATICA
Croatian Biological Society

14. HRVATSKI BIOLOŠKI KONGRES
s međunarodnim sudjelovanjem

14th CROATIAN BIOLOGICAL CONGRESS
with International Participation

Pula, 12 - 16. 10. 2022.



14. *Hrvatski
biološki kongres*
Pula 12.-16.10. 2022.

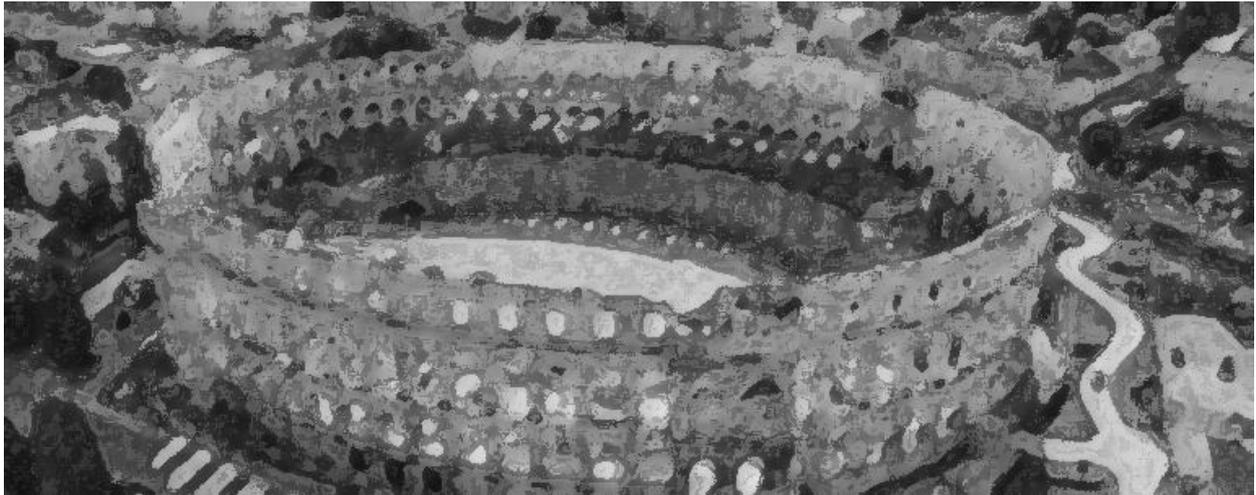
ZBORNİK SAŽETAKA
BOOK OF ABSTRACTS



**14th Croatian Biological
Congress**
Pula, October 12 -16, 2022



Hrvatsko biološko društvo
SOCIETAS BIOLOGORUM CROATICA
Croatian Biological Society



14. HRVATSKI BIOLOŠKI KONGRES
s međunarodnim sudjelovanjem
12 - 16. listopada 2022.
Pula, Hrvatska

14th CROATIAN BIOLOGICAL CONGRESS
With International Participation
12nd - 16th October 2022
Pula, Croatia

ZBORNİK SAŽETAKA
BOOK OF ABSTRACTS

Zagreb, 2022.

**ZBORNİK SAŽETAKA
14. HRVATSKOG BIOLOŠKOG KONGRESA**

**BOOK OF ABSTRACTS
OF THE 14th CROATIAN BIOLOGICAL CONGRESS**

Urednici / Editors

Katarina Caput Mihalić
Vlatka Mičetić Stanković
Inga Urlić
Armin Mešić
Petar Kružić

Odgovorni tehnički urednici / Technical Editor in Chief

Petar Kružić
Katarina Caput Mihalić
Vlatka Mičetić Stanković

Autor fotografija / Photo by

Petar Kružić

Hrvatsko biološko društvo
Croatian Biological Society

Zagreb, 2022.

ISSN 1848-5553

Ključni naslov: Zbornik sažetaka (Hrvatski biološki kongres s međunarodnim sudjelovanjem)

Skraćeni ključni naslov: Zb. sažet. (Hrvat. biol. kongr. međunar. sudjel.)

**Organizator kongresa i izdavač zbornika /
Organiser of the Congress and Publisher of the Book of Abstracts**

Hrvatsko biološko društvo
Croatian Biological Society
Rooseveltova trg 6, HR-10000 Zagreb, Hrvatska
Tel: +385 (0)1 4877733; Fax: +385 (0)1 4826260
e-mail: info@hbd-sbc.hr
URL: www.hbd-sbc.hr

**Organizacijski i programski odbor kongresa /
Organising and Program Committee of the Congress:**

Petar Kružić, predsjednik / President
Vlatka Mičetić Stanković, tajnica / Secretary
Katarina Caput Mihalić, blagajnica / Treasurer

Članovi / Members: Mladen Kučinić, Inga Urlić, Ivana Šola, Snježana Židovec Lepej, Valerija Begić, Sandi Orlić, Petra Korać, Petra Burić, Paolo Paliaga, Nediljko Landeka, Milena Mičić, Mauro Štifanić, Emina Pustijanac.

Znanstveni odbor / Scientific Committee:

Inga Urlić, predsjednica / President
Armin Mešić, dopredsjednik / Vice president

Članovi / Members: Andreja Ambriović-Ristov, Vesna Benković, Višnja Besendorfer, Branimir K. Hackenberger, Krunoslav Brčić-Kostić, Marko Čaleta, Jelena Kralj, Jakov Dulčić, Hrvoje Fulgosi, Ivana Maguire, Zlatko Mihaljević, Marcelo Kovačić, Bojan Lazar, Zlatko Liber, Zrinka Ljubešić, Renata Matonićkin-Kepčija, Toni Nikolić, Mirjana Pavlica, Miroslav Plohl, Martina Podnar Lešić, Ines Radanović, Zdenko Tkalčec, Ivančica Ternjej, Željka Vidaković-Cifrek, Rosa Karlić, Irina Zupan, Zorana Grubić, Feodora Stipoljev, Mirela Sertić Perić, Zrinka Pongrac Štimac, Tanja Žuna Pfeiffer, Barbara Sladonja, Ante Žuljević, Irena Labak, Dubravko Pavoković, Vlatka Filipović Marijić, Ivana Kušan, Marija Zekušić, Irena Grbac, Martina Šašić Kljajo, Igor Stanković, Petar T. Mitrikeski, Bojan Hamer, Dijana Pavičić-Hamer.

Tehnička potpora / Technical support:

Ivan Šetin, Neven Iveša, Luca Privileggio, Lucia Nikolić, Matej Čief, Andreja Kokorović, Marko Orbović, Petra Peharec, Nicol Delcaro, Moris Šarić, Iris Matulja, Chiara Batelli, Pia Lasić, Ena Radić Manestar, Ivana Kirin, Mateo Jakac, Silvija Cukon.

Tehnički organizator kongresa / Technical support for registration, accommodation and excursions:

PRO PUTUJ d.o.o. putnička agencija / travel agency; Zapoljska 14, HR-10000 Zagreb, Croatia

Pokrovitelji / Patrons:

Istarska županija / Istra County

Grad Pula / City of Pula

Aquarium Pula d.o.o.

Biološki odsjek Prirodoslovno-matematičkog fakulteta Sveučilišta u Zagrebu / Department of Biology, Faculty of Science, University of Zagreb

Suorganizator / Co-organizer:

Sveučilište Jurja Dobrile u Puli, Fakultet prirodnih znanosti / Juraj Dobrila University of Pula, Faculty of Natural Sciences

**Suorganizator Simpozija „Okolišna DNA“ / Co-organizer of the Symposium Environmental DNA:**

Labena d.o.o.

**Sponzori / Sponsors:**

Labena d.o.o. – Zlatni sponzor / Gold sponsor

Fond za zaštitu okoliša i energetske učinkovitost

INEL

Alfa d.d.

Kefo d.o.o.

Ru-ve d.o.o.

MEDIC d.o.o.

Biosistemi d.o.o.

Alpha Chrom d.o.o.

Turistička zajednica Pula

Wine Station - OPG Trapan Bruno

Nastavni zavod za javno zdravstvo Istarske županije / Istituto formativo di sanità pubblica della Regione Istriana

eutrophication indicators need to be adjusted. This study focuses on the assessment of: 1) ecological status of a karst lake using phytoplankton and supportive physico-chemical quality elements, and 2) trophic status based on eutrophication status and impact indicators. Furthermore, our goal was to test the applicability of Chlorophyll-*a* (Chl-*a*) and Hungarian Lake Phytoplankton Index (HLPI) as reliable metrics in the routine monitoring of the Lake Visovac (Krka River, Southern Croatia). Sampling was conducted during 2016 and 2019 on a monthly basis from April to September. According to the results of Chl-*a*, Lake Visovac was within the limits of oligo- to mesotrophic status, while HLPI indicated the good ecological status of the Lake. We suggest using Chl-*a* for rapid bioassessment on a weekly basis as an early warning indicator of potential deterioration. The use of more complex and detailed HLPI metric is recommended to be applied monthly. In order to achieve continuous targeted monitoring of this highly sensitive karst aquatic system, further efforts in improving the confidence level of the metrics and a comprehensive revision of boundaries for included indicators is necessary.

Keywords: chlorophyll-*a*, ecological status, eutrophication, Hungarian Lake Phytoplankton Index, karstic lake

P-58

INDICATIVE STATUS ASSESSMENT OF SERBIAN PART OF THE DANUBE RIVER AND ITS TRIBUTARIES BASED ON AQUATIC MACROINVERTEBRATES– JDS4

B. Tubić, N. Popović, A. Atanacković, K. Zorić, J. Tomović, M. Raković, J. Đuknić, N. Marinković, S. Anđus, M. Paunović

Institute for biological research “Siniša Stanković”, National Institute of the Republic of Serbia, University of Belgrade, Department of Hydroecology and Water Protection, Despot Stefan Blvd. 142, 11060 Belgrade, Serbia (bojana@ibiss.bg.ac.rs)

During the „Joint Danube Survey 4“ (JDS4) research program, performed in the first weeks of July 2019, Serbian national team carried out Multi-Habitat Sampling as a standardized WFD sampling method for the ecological status assessment (AQEM Consortium, 2002). Samples of aquatic macroinvertebrates were taken from 12 sites along Serbian stretch of the Danube River, 5 on the Danube River and 7 on its tributaries. Indicative Status Assessment (ISA) was performed using aquatic macroinvertebrates as bioindicators and taking into consideration community structure and composition. In total, 91 taxa belonging to 19 higher taxonomic groups were found, 57 of them were found in the Danube River and 62 taxa in the tributaries. Main groups in the benthic community in respect to taxa richness were Annelida (40,78%), Mollusca (25,60%), Crustacea (16,80%) and Insecta (15,92%). The most abundant taxa were *Limnodrilus hoffmeisteri* Claparede, 1862 and *Lithoglyphus naticoides* (Pfeiffer, 1828). Selected metrics used for the ISA, according to national legislation, were obtained through ASTERICS software (AQEM, 2002). ISA of Serbian stretch of the Danube River and its tributaries, which belong to the large lowland rivers, could be assessed as moderate (class III) to bad status (class V). Based on benthic macroinvertebrates community, it is concluded that investigated localities are primarily under the influence of moderate organic pollution as well as various types of hydromorphological pressures.

Keywords: aquatic macroinvertebrates; the Danube River; tributaries; JDS4; ecological status assessment