

V CONGRESS OF THE SERBIAN GENETIC SOCIETY

BOOK OF ABSTRACTS

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Editors

Branka Vasiljević

Snežana Mladenović Drinić

Technical editors

Zorana Kurbalija Novičić

Bojana Banović

Aleksandra Patenković

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eldastankovic@hotmail.com

WELCOME TO V CONGRESS OF THE SERBIAN GENETIC SOCIETY!

Dear colleagues,

Welcome to the 5th Congress of the Serbian Genetic Society. The Serbian Genetic Society (SGS) has been founded in 1968 and the first Congress organized by the SGS was held 20 years ago in Vrnjacka Banja. Since then, the Congress of Serbian Genetic Society is held every five years. Over the past 20 years, the Congress has grown from a national to an international meeting. On this occasion we will have participants from 26 countries, so we believe that this conference will successfully provide a platform for regional and international researchers and professionals in genetics to have a productive dialogue and share their views.

The aim of the Congress is to reflect on progress made in genetics, to celebrate the best of contemporary research and to anticipate future developments in the discipline.

The Congress will focus on wide range of topics organized in 8 sessions: Human Genome Variation, Medical Genetics, Genetic Toxicology: From Cell to Ecosystem, Adaptation to Changing Environments, Genetic Diversity, Phylogeny and Conservation, Methodology in Genetic Research, Pre Breeding and Breeding, New Techniques in Breeding. The programme will include 21 plenary lectures, 44 oral and 255 poster presentation and also, a special feature of the Congress will be a roundtable on novel food.

More than 300 participants are expected to attend this year's Congress. Many of the presentations will accordingly be in lecture-like settings, but we hope that there will also be ample opportunities for informal interaction outside the scheduled sessions. We hope that participants will have opportunity not only to attend presentations of cutting-edge research, but also through those interactions to launch new projects and to spend time with co-authors.

The successful organization of the Congress has required the talents, dedication and time of many members of the Scientific and Organizing committees and strong support from sponsors.

I hope that you will find the Congress both pleasant and valuable, and also enjoy the cultural and natural beauty of Kladovo and National park Djerdap.

Yours sincerely,



Branka Vasiljevic
Chair of the Scientific Committee

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III-04 Poster

Assessment of genotoxic pollution of the Danube River
with comet assay in different tissues
of common bream (*Abramis brama* L. 1758)

Mustafa ABORGIBA¹, Samia ELBAHI¹, Stoimir KOLAREVIĆ¹, Jovana KOSTIĆ^{1,2},
Margareta KRAČUN-KOLAREVIĆ³, Jelena KNEŽEVIĆ-VUKČEVIĆ¹, Mirjana LENHARDT²,
Zoran GAČIĆ², Branka VUKOVIĆ-GAČIĆ¹

¹Center for Genotoxicology and Ecogenotoxicology, Faculty of Biology, University of Belgrade,
Belgrade, Serbia

²Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia

³Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

The aim of this study was to assess the genotoxic potential of Danube River at the site Višnjica (downstream Belgrade) on monthly basis over year 2014 in tissues of common bream (*A. brama*). The level of DNA damage in the three tissues, blood, gills and liver was measured by comet assay as one of the major tools for assessing pollution related genotoxicity in aquatic organisms. Images of scored nucleoids were analyzed using software (Comet Assay IV). Significant differences in the level of DNA damage were observed in different tissues. For all three tissues, levels of DNA damage were higher comparing to data obtained in our previous research on Cyprinidae family from unpolluted site Special Nature Reserve "Uvac". These results indicate the presence of genotoxic pollution at the site Višnjica. The samples of tissues were also collected for histopathology and heavy metals analyses which will provide further insight in the origin and fate of the detected genotoxic influence. Physical and chemical parameters and microbiological quality of water assessed each month are in correlation with comet assay results.

Keywords: comet assay, *Abramis brama*, genotoxicity, the Danube River