

Laboratory of Genetics

Population Genetics, Conservation Genetics, Molecular taxonomy, Phylogenetics, Phylogeography

The research of the Laboratory of Genetics integrates various aspects of population genetics, phylogenetics, molecular taxonomy, phylogeography and conservation genetics, with the goal of understanding genetic variation and its role in ecological and evolutionary processes. In order to estimate the potential of populations to respond to climate changes and turbulent and continuously changing environment, the Laboratory's research focus is on the application of various molecular markers in plant and animal species, with the aim of estimating genetic diversity and structuring, gene flow, inbreeding, demography, phylogenetics, phylogeography, as well as the development of conservation and sustainable management plans. The research is primarily oriented toward mammal species (mostly game species), while an important research segment also focuses on solving taxonomical problems within diverse hoverfly species. In addition, the group explores human genetic polymorphisms and conducts associative studies based on genotype-phenotype interactions in multifactorial complex disorders, such as cardiovascular or oncological diseases.



COLLABORATIONS

- Department of Integrative Biology and Evolution, University of Veterinary Medicine Vienna, Austria – Phylogeography, genetic structure and immunogenetic diversity in brown hares from Europe and Asia Minor
- Wildlife Research Unit, Department of Biology, University of Aveiro, Portugal – Genetic structuring and phylogeography of wild boars from Europe
- Finnish Museum of Natural History, University of Helsinki, Finland – Phylogenetics and molecular taxonomy of hoverflies (Diptera: Syrphidae)

CONTACT PERSON

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<https://www.researchgate.net/lab/Laboratory-of-Genetics-Mihajla-Djan>

SELECTED PROJECTS

Title: *Genomic Biodiversity Knowledge for Resilient Ecosystems – G-BIKE*

Type: COST Action

Duration: 2019-2023

Contact person:

Dr Nevena Veličković,
Science Communication Manager

Title: *Insect-plant relationships: insights into biodiversity and new applications - FlyHigh*

Type: Horizon2020, Marie Skłodowska-Curie Actions

Duration: 2015-2018

Contact person: Dr Mihajla Djan,
Dr Nevena Veličković, participants

Title: *Conservation strategy for protected and strictly protected hoverflies (Insecta: Diptera: Syrphidae) species in Serbia – Case study*

Type: Serbian Ministry of Education, Sciences and Technological Development of Republic of Serbia

Duration: 2011-

Contact person: Dr Mihajla Djan



SELECTED EQUIPMENT

- Eppendorf Mastercycler ep RealPlex 4
- Eppendorf Mastercycler Personal
- Eppendorf 5417R Refrigerated Centrifuge
- Equipment for horizontal and vertical gel electrophoresis (SERVA and Hoeffer)