Sonja Lecic | Curriculum Vitae

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"Change is the only constant" - Heraclitus of Ephesus

Education

University of Veterinary Medicine / Vienna Graduate School of Population Genetics **Austria**
Ph.D. in Population Genetics *2018–present*

University of Belgrade **Serbia**
Master in Entomology *2010–2012*

University of Belgrade **Serbia**
Bachelor in Biology *2006–2010*

5th Belgrade Gymnasium **Serbia**
High School, Mathematics-Physics optional line *2002–2006*

Doctoral Project

Working Title: *From whole genome pool sequencing to haplotype-base inference of selection signatures during thermal adaptation of Drosophila simulans evolved populations*

Supervisors: Prof. Christian Schlötterer, Ass. Prof. Ovidiu Paun, and Ass. Prof. Robert Kofler

Description: This project aims to measure the cost of Ace insecticide resistance alleles in insecticide free environment. Using a combination of experimental evolution in the hot and cold laboratory environment, haplotype sequencing, Pool-Seq, RNA-seq this project demonstrates that the cost of insecticide resistance differs in hot and cold conditions and proposes that neuronal signaling has environment-specific requirements modulated by Ace expression levels and frequency of resistance alleles

Side-Project/Additional Interests: *Accuracy of computational haplotype phasing in evolved Drosophila simulans populations*

Description: While whole genome sequencing of pools of individuals (Pool-Seq) is effective in providing highly accurate genome-wide allele frequency estimates provides only limited information about linkage between SNPs. In reality, SNPs are arranged in sequences which form haplotypes where the order of SNPs in each of the homologue chromosomes contains valuable information on the relationship between variants. This project aims to use the combination of experimental and statistical phasing to explore and identify the factors which influence the accuracy of haplotype phasing in evolved Drosophila simulans populations in order to improve the accuracy of haplotype phase estimation

Masters Thesis

Title: *Secretion of defensive pigydial glands in ground beetles (Coleoptera, Carabidae):overview and role*

Supervisors: Prof. Srecko Curcic

Description: This thesis investigated chemical composition of defensive secretions in ground beetle species

Publications

Lecic, S. *et al.* Defensive secretions in three ground-beetle species (insecta: Coleoptera: Carabidae). *Annales Zoologici Fennici* **51**, 285–300 (2014).

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Computer skills

Intermediate: Python

Advanced: R, Bash, Awk Scripting, LaTeX

GitHub: www.github.com/slecic

Communication Skills

2019-May: Oral Presentation at the Scientific Advisory Board meeting (Andy Clark, Nick Barton, John Parsh and Virginie Courtier-Orgogozo) - Vienna, Austria

2019-Jan: Oral Presentation at PopGroup52 - Oxford, UK

2015-Sep: Science communicator at Science festival - Belgrade, Serbia

2015-Dec: Science communicator at European Researcher's Night Belgrade, Serbia

Teaching

Vienna Graduate School of Population Genetics **Austria**
Experimental evolution: bringing theory and practice together *2019*
Organization cometee and assistant student with exercises

University of Belgrade **Serbia**
Population Genetics *2016*
Assistance with population genetic problems and exercises.

Courses and workshops

2019-May: Molecular population genetics - Vienna, Austria

2018-Sep: Population Genetics - Vienna, Austria

2016-Sep: Programing in Evolutionary Biology (PEB) - Belgrade, Serbia

Experience

Academic

Medical University of Vienna **Austria**
Prof. Wolfgang Miller lab *2017*
Schoilarship of the Medical University of Vienna

Aim was to check for Wolbachia infection status and over-replication of Wolbachia titer in parents vs. hybrid crosses of Drosophila yakuba species group

University of Veterinary Medicine Vienna **Austria**
Prof. Christian Schlötterer lab *2017*
Scholarship of the Institute for Population Genetics

Aim of the project was to test the performance of different mapping and variant calling algorithms on Drosophila melanogaster simulated genomic time series data. In addition run two parallel evolve and re-sequence experimental Drosophila simulans cages at cycling hot temperature regime for QTL detection

Institute for Biological Research Sinisa Stankovic **Serbia**
Prof. Academic Marko Andjelkovic lab *2014–2017*
Research trainee

Aim of the project was to investigate altitudinal pattern of chromosomal inversion variability in Drosophila subobscura populations

University of Belgrade **Serbia**
Prof. Secko Curcic lab *2013–2014*
Internship

Aim of the project was to investigate chemical composition of defensive secretions in ground beetle species

Languages

English: Fluent *Daily usage*

Serbian: Mothertongue *Mother's language*

Russian: Intermediate *Learned at school*

French: Basic *Basic words and phrases*

German: Basic *Basic words and phrases*

Interests

- Amateur Astronomy
- Painting
- Traveling
- Music
- Reading
- Tennis