

Seray Altıntaş

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github.com/getsacks

Istanbul/Türkiye
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LANGUAGE

Turkish (*Native*)

English (*Fluent*)

Spanish (*Beginner*)

EDUCATION

- **MSc in Molecular Biology and Genetics** Koç University, Istanbul
College of Sciences 2022/2 - 2025/1
Title: Understanding genomic patterns of diversity and adaptation in sympatric and allopatric populations of high-altitude cricket species.
Advisor: Ismail K. Saglam
- Ecology and Evolutionary Biology, Population and Conservation Genomics, Bioinformatics
- **BSc in Molecular Biology and Genetics** Istinye University, Istanbul, Türkiye
Faculty of Engineering and Natural Sciences 2017 - 2021/7

RESEARCH EXPERIENCE

- **Biodiversity and Evolutionary Genetics Laboratory (KuBEGE)** Koç University
Graduate Student Researcher, Advisor: Ismail K. Saglam 2022/12 - Present
Project investigates rapid divergence and speciation in *Phonochorion* crickets. Furthermore, the study continues to population genomics and employs various bioinformatics tools for analysis.
- **Biodiversity and Evolutionary Genetics Laboratory (KuBEGE)** Koç University
Research Project Assistant (Scholarship student), Advisors: Ismail K. Saglam, Nikola Petkovic 2022/2 - 2024/1
Project focusing on *Daphnia magna*, specifically examining the evolutionary genomics underlying the response of life history traits to fluctuating and deteriorating thermal conditions. Funded by TÜBİTAK (The Scientific and Technological Research Council of Türkiye).
- **Biodiversity and Evolutionary Genetics Laboratory (KuBEGE)** Koç University
Intern, Advisors: Ismail K. Saglam, Morteza Naderi, Cagan Sekercioglu 2021/10 - 2022/2
This study primarily focused on the population genetics and ecology of Brown Bears in Türkiye. Funded by TÜBİTAK.
- **Labredoor Biotechnology Company** Istanbul
Researcher 2021/1 - 2023/2
- **Gözükırmızı Lab** Istinye University
Undergraduate Student Researcher (Scholarship student), Advisors: Nermin Gözükırmızı, Elif Karlık 2020/5 - 2021/2
Comparison of retrotransposon movements between einkorn wheat (*T.monococcum*) and bread wheat (*T.aestivum*) was aimed. The project represented the literature's first investigation of retrotransposon movements in einkorn and bread wheat varieties. Funded by TÜBİTAK.

PUBLICATIONS

- [1] Seray Altıntaş, Bekir Ahmet Ilgar, Elif Karlık [Comparative Retrotransposon Analysis in Wheat](#) *Journal of Advanced Research in Natural and Applied Sciences*, 7(3), 369-374 (2021).

SKILLS

Programming languages: R, Python, SQL

Bioinformatic analysis:

- Sequence alignment, filtering and indexing by samtools and BWA
- Genotyping and SNP calling by ANGSD
- Population structure (PCA) using R and python
- Admixture by NGSadmix and R

- Site Frequency Spectrum (SFS) by ANGSD and R

Scripting and typesetting: L^AT_EX, sed, awk, Bash

Operating systems: GNU/Linux

Other tools and frameworks: Git, ANGSD - angsd, ngsTools, PCAngsd, ngsParalog, samtools, bwa, Conda

Laboratory:

- DNA isolation from scat; seeds; animal, insect and plant tissue
- *Daphnia* maintaining
- Plant and algae culture
- Use of various light microscopes
- PCR and qPCR
- Agarose gel electrophoresis and SDS-PAGE
- Qubit and NanoDrop DNA quantification

Fieldwork:

- Collecting *Daphnia* and crickets for projects

POSTER PRESENTATIONS

[3] **Seray Altıntaş**, Ismail K. Saglam. Investigating Genomic Processes Underlying Rapid Divergence and Speciation in Phonochorion. *Ecology and Evolutionary Biology Symposium (EEBST)*, Türkiye, (2023).

[2] Nikola Petkovic, **Seray Altıntaş**, Ismail K. Saglam. Evolution of the life history traits of *Daphnia magna* as a response to the environmental change. *Ecology and Evolutionary Biology Symposium (EEBST)*, Türkiye, (2023).

[1] **Seray Altıntaş**, Ismail K. Saglam. Investigating Genomic Processes Underlying Rapid Divergence and Speciation in Phonochorion. *Koç University Science Fair*, Türkiye, (2023).

TEACHING EXPERIENCE

- Genome Analysis and Bioinformatics, Graduate Course, **Teaching Assistant**, Koç University, (2024).
- Genetics Laboratory-I, Undergraduate Course **Teaching Assistant**, Koç University, (2023).
- Genetics-II, Undergraduate Course **Teaching Assistant**, Koç University, (2023).
- Genetics-I, Undergraduate Course **Teaching Assistant**, Koç University, (2022).

SELECTED COURSES

- Machine Learning A-Z: AI, Python, R, Udemy, 2024
- Summer School on Evolutive Ecology and Biology, University of Montpellier, 2024
- Basic End-to-End Python Project, 2024
- Beginner Data Science Path, patika.dev Academy, 2024
- Geographic Analysis of Biodiversity Data Workshop, 2023
- Basics of Microscopy, 2023
- Fundamentals of Biological Databases, 2022
- Evolutionary Genomics Winter School, Ecology and Evolutionary Biology Society of Türkiye, 2021
- Code In Place, Stanford University, 2021

MEMBERSHIPS & AFFILIATIONS

- Ecology and Evolutionary Biology Society of Türkiye, 2023 - present
- Biology Society of Türkiye, Junior Biologist, 2020 - 2022
- Good4Trust.org, Web Content Writer, 2021/6 - 2021/12

INTERESTS

- Generative Art, ML
- Bouldering
- Art and Graphic design
- Sea and diving

CANNOT BE ATTENDED DUE TO VISA PROCEDURES

[1] **Seray Altıntaş**, Ismail K. Saglam. Investigating Genomic Processes Underlying Rapid Divergence and Speciation in Phonochorion. *Conservation Genomics Paris*, France, (2024).