

LANGUAGE

Turkish (*Native*)

English (*Fluent*)

TOEFL iBT: 102/120 (Reading: Advanced, Listening: Advanced, Speaking: High-Intermediate, Writing: Advanced)

German (*Beginner*)

Danish (*Beginner*)

EDUCATION

- BSc in Biology** Hacettepe University, Ankara, Turkey
Faculty of Science, Department of Biology Date of Graduation: 06.07.2020
GPA: 3.23, Certificate No: 20-321-032

RESEARCH EXPERIENCE

- GLOBE Institute, Section for GeoGenetics** University of Copenhagen, Denmark
Research assistant, Advisor: Thorfinn Sand Korneliussen and Rasmus Nielsen 2020/10 - ongoing
I contributed to the development and evaluation of the Lundbeck projects bioinformatic pipeline. I contributed in a number of independent projects which resulted in one publication (submitted) and contributed to 4 ongoing projects.
- Fumagalli Lab** Imperial College London, United Kingdom
Intern, Advisor: Matteo Fumagalli 2019/7 - 2019/9
I contributed to the HMMPloidy project by implementing various functions such as the genotype likelihood calculation for any given N-ploidy value, which resulted in a publication available as preprint.
- Biogeography Research Laboratory** Hacettepe University, Turkey
Intern, Advisor: Barış Özüdoğru 2019/2 - 2020/7
I developed a bioinformatic pipeline for the preprocessing, alignment, postprocessing and the phylogenomic analyses of RADSeq data, which I have used to carry out analyses which resulted in a manuscript in preparation.
- Laboratory of Comparative and Evolutionary Biology** Middle East Technical University, Turkey
Intern, Advisor: Mehmet Somel 2018/8 - 2019/6
I carried out analyses to evaluate the effect of probe sequences' GC content on the performance of the 1240K SNP capture method.
- Laboratory of Evolutionary and Quantitative Genetics** Hacettepe University, Turkey
Intern, Advisor: Ergi Deniz Özsoy 2015/10 - 2019/2
I contributed to the statistical analyses of quantitative genetics projects based on Drosophila Genetic Reference Panel 2 data, which resulted in a poster presentation and acknowledgement in MSc and PhD theses.

SKILLS

Programming languages: C/C++, R, Python, Bash, Perl, Java, JavaScript

Markup languages: L^AT_EX, Markdown, HTML&CSS

Operating systems: GNU/Linux

Other tools and frameworks: Git, RShiny, Django, Conda, Snakemake

For more information on my programming skills and experiences please refer to my GitHub profile.

RELEVANT COURSES

Advanced Topics in Data Analysis, University of Copenhagen, 2021

Fundamentals in Computational Analysis of Large-Scale Datasets, University of Copenhagen, 2021

Stay-at-Home RevBayes Workshop, Topics: Tree inference from molecular data, evaluating MCMC performance, assessing model adequacy and macroevolutionary analyses, 2020

Fundamentals of Bioinformatics, Department of Computer Science, Hacettepe University, Lecturer: Tunca Doğan, 2019

Population Genetics, Graduate course, Department of Molecular Biology and Genetics, Middle East Technical University, Lecturer: Mehmet Somel, 2018

Population Genetics Simulations with R, Middle East Technical University, 2018

Introduction to Game Theory, Anadolu University, 2017

Evolutionary Genomics Winter School, Hacettepe University, 2017

PRESENTATIONS

"*Biological Evolution*", Science and Future Magazine Science for Youth Seminar, 2018

"*Evolutionary Perspectives on Ecological Problems*", Turkey Meets Evolution: Bilkent University, 2016

"*Evolutionary Biology and Preventing the Species Extinction*", 7th National Environment and Ecology Student Congress, 2016

POSTER PRESENTATIONS

Damla Aygün, **Isin Altinkaya**, Murat Yılmaz, Ergi Deniz Özsoy, Efe Sezgin. "Host genetics of microbiota diversity in *Drosophila melanogaster*". *Ecology and Evolutionary Biology Symposium*, Turkey, 2018

PUBLICATIONS

PREPRINTS

Samuele Soraggi, Johanna Rhodes, **Isin Altinkaya**, Oliver Tarrant, François Balloux, Matthew C. Fisher, Matteo Fumagalli. HMMploidy: inference of ploidy levels from short-read sequencing data. bioRxiv, <https://doi.org/10.1101/2021.06.29.450340>

SUBMITTED

Alex Mas-Sandoval, Nathaniel S. Pope, Knud Nor Nielsen, **Isin Altinkaya**, Matteo Fumagalli, and Thorfinn Sand Korneliussen. Fast and accurate estimation of multidimensional site frequency spectra from low-coverage high-throughput sequencing data.

MANUSCRIPTS IN PREPARATION

Isin Altinkaya, Thorfinn Sand Korneliussen, Gabriel Renaud, Karyokan: Bayesian inference of karyotype for low coverage data.
Isin Altinkaya, Ismail Kudret Saglam, Barış Özüdoğru, Understanding the phylogenetic relationships within the *Noccaea* species complex from RADseq data using the multi species coalescent.

Following are the ongoing projects I contributed and will be a coauthor once the publication is ready;

Morten Erik Allentoft et al. Human demography in Europe through the Mesolithic and Neolithic ages.

Hugh McColl, José Victor Moreno Mayar, **Isin Altinkaya**, Thorfinn Sand Korneliussen, Accurate and precise library complexity estimations for ancient DNA libraries using patterned flowcell technology.

Fulya Eylem Yediay et al., Population genomics of Bronze Age Mediterranean.

Benchmarking the performance of state-of-art HLA typing tools with simulated ancient DNA data

SCIENTIFIC OUTREACH, PUBLIC ENGAGEMENT AND ACTIVITIES

12th Aykut Kence Evolution Conference, Organizer, 2018

Turkey Meets Evolution: Izmir, Organizer, 2012

Tree of Evolution Bornova Anatolian High School Evolution Workshop, Organizer, 2012

Science and Utopia Magazine, Popular science writer, Subject: Evolutionary biology, June 2017 - May 2018

Popular Science Magazine, Translator, February 2016 - May 2016

Tree of Evolution, Writer and editor; Subject: Evolutionary biology, November 2015 - present

POPULAR SCIENCE PUBLICATIONS

Science and Utopia Magazine, Issue: 283, Examining the Thin Line Between Living and Non-Living Matter, with Dr. Martin Hanczyc

Science and Utopia Magazine, Issue: 278, Education and Perceptions: Evolution in Turkey

Atheist Magazine, Issue: 16, The Evolving Brain

Atheist Magazine, Issue: 14, Evolutionary Perspectives on LGBTI+

Atheist Magazine, Issue: 13, Understanding Evolution through the Human Body

Atheist Magazine, Issue: 12, Atheist Thinking under the Light of Evolution

Popular science articles at the Evrim Ağacı (Tree of Evolution) platform can be found at evrimagaci.org/isinaltinkaya.

TEACHING EXPERIENCE

"Advanced Bioinformatics for Next-Generation Sequencing 2021", MSc course, University of Copenhagen, Teaching Assistant, 2021

"Introduction to Computational Biology and Bioinformatics Workshop", Hacettepe University, Teaching Assistant, 2020

"Biometry", 4th year elective course, Hacettepe University, Teaching Assistant, 2019

"Introductory Evolutionary Biology", Science and Utopia Evolution Courses, Lecturer, 2017

"Introduction to Evolution", Hacettepe University Evolution Workshops, Lecturer, 2016

SCHOLARSHIPS & AWARDS

Erasmus+ Traineeship Grant, Imperial College London, 2019

Hacktoberfest Award, for contributing to open source projects, 2018 and 2019

Atheist Alliance International Foundation Scholarship, for students in underdeveloped countries, 2016 and 2017

PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

Society for the Study of Evolution, *2021 - present*

Free Software Foundation, *2020 - present*

Ecology and Evolutionary Biology Society of Turkey, *2017 - present*