Esra DURMAZ MITCHELL, PhD

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PERSONAL INFORMATION

Date/Place of birth	01 July 1986, Ankara, Turkey
Citizenship	Republic of Turkey
Languages	Turkish (native), English (advanced), French (intermediate), Danish (basic)
Programming Languages	R, Python, Bash

EDUCATION

2013 – 2017 **Ph.D.** in Life Sciences, University of Lausanne, Department of Ecology and Evolution, Lausanne, Switzerland

Effects of Clinal Polymorphisms on Drosophila Life History

Advisors: Prof. Thomas Flatt & Prof. Tadeusz Kawecki

2009-2012 **M.Sc.** in Biology, Hacettepe University, Department of Biology, Ankara, Turkey

A study of sexual maturity, offspring number and mating behavior characteristics in genetically different natural isofemale lines of Drosophila subobscura from Turkey

Advisors: Ass. Prof. Ergi Deniz Özsoy & Prof. Therese Ann Markow

2004-2009 **B.Sc.** in Biology, Hacettepe University, Department of Biology, Ankara, Turkey

RESEARCH AND WORK EXPERIENCE

2022 – now **Senior Researcher,** University of Fribourg, Department of Biology

2017 – now **Teaching assistant**, University of Fribourg, Department of Biology

2017 – 2022 **Post-Doctoral Research Fellow,** University of Fribourg, Department of Biology

2014 **Visiting Scholar**, University of Pennsylvania, Department of Biology

2014 **Visiting Scholar**, Oxford Brookes University, Department of Biological and Medical Sciences

2013 – 2017 **PhD Candidate**, Department of Ecology and Evolution, University of Lausanne

2013 – 2017 **Teaching assistant**, University of Lausanne, Department of Ecology and Evolution

2010 **Visiting Scholar**, University of California San Diego, Division of Biological Sciences

2009 – 2012 **Teaching assistant**, Hacettepe University, Department of Biology

PUBLICATIONS

IN PROGRESS

Rodrigues MA, Paris M, Kapun M, **Durmaz E**, Kerdaffrec E, Flatt T. "The transcriptional underpinnings of the trade-off between reproduction and somatic maintenance in *Drosophila melanogaster*", *pdf available upon request*.

Kapun M, **Durmaz E**, Kawecki T, Schmidt P, Flatt T. "An ancestrally tropical balanced inversion polymorphism confers global adaptation to warm climate", *pdf available upon request.*

Durmaz E, DrosEU Consortium, et al. "Patterns of phenotypic variation in European populations of *Drosophila melanogaster*", *in preparation.*

Durmaz E, Kapun M, Kawecki T, Flatt T. "Allelic competition and experimental evolution in *foxo*: how do clinal polymorphisms react to thermal adaptation?", *in preparation.*

Durmaz E, Kerdaffrec E, Paris M, Katsianis G, Kapun M, Flatt T. "Testing evolutionary forces maintaining a clinal inversion polymorphism", *in preparation.*

Durmaz E, Kerdaffrec E, Schmidt P, Flatt T. "Experimental evolution of an adaptive inversion polymorphism", *in preparation*.

Kittelmann S, **Durmaz E**, Kerdaffrec E, Flatt T. "Transcriptional landscape and chromosome accessibility of a clinal chromosomal inversion in *Drosophila*", *in preparation.*

Onder BS, **Durmaz E**, Demir E, Flatt T. "Seasonal reaction norms for pre-adult life history traits in *Drosophila melanogaster*", *in preparation.*

PUBLISHED

Rodrigues MA, Merckelbach A, **Durmaz E**, Kerdaffrec E, Flatt T. "Transcriptomic evidence for a trade-off between germline proliferation and immunity in *Drosophila*", *Evolution Letters,* 2021; *doi:10.1002/evl3.261*.

Özsoy E, Yilmaz M, Patlar B, Emecen G, **Durmaz E**, Magwire MM, Zhou S, Anholt RRH, Mackay TFC. "Epistasis for head morphology in *Drosophila melanogaster*", *G3 Genes*|*Genomes*|*Genetics,* 2021; 11:10–jkab285.

Betancourt N, Rajpurohit S, **Durmaz E,** Fabian DK, Kapun M, Thomas F, Schmidt P. Allelic polymorphism at *foxo* contributes to local adaptation in *Drosophila melanogaster*, *Molecular Ecology*, 2021; 00:1–14.

Durmaz E, Kerdaffrec E, Katsianis G, Kapun M, Flatt T. "How does selection act on chromosomal inversions?", eLS (*Encyclopaedia of Life Sciences*), 2020; 1, 307–315.

Durmaz E, Rajpurohit S, Betancourt N, Fabian DK, Kapun M, Schmidt P, Thomas F. A clinal polymorphism in the insulin signaling transcription factor *foxo* contributes to life-history adaptation in *Drosophila*, *Evolution*, 2019; 73-9(5):1774-1792.

Durmaz E, Benson C, Kapun M, Schmidt P, Flatt T. An inversion supergene in *Drosophila* underpins latitudinal clines in survival traits, *Journal of Evolutionary Biology*, 2018; 31(9):1354-1364.

Durmaz E. The Effects of Clinal Polymorphisms on *Drosophila* Life History, PhD Thesis, 2017; University of Lausanne Open Archive.

Kapun M, Schmidt C, **Durmaz E**, Schmidt PS, Flatt T. Parallel effects of the inversion *In(3R)Payne* on body size across the North American and Australian clines in *Drosophila melanogaster*, *Journal of Evolutionary Biology*, 2016; 29(5):1059-72.

Demirci B, **Durmaz E**, Alten B. Influence of Bloodmeal Source on Reproductive Output of the Potential West Nile Vector, *Culex theileri* (Diptera: Culicidae), *Journal of Medical Entomology*, 2014, 1;51(6):1312-6.

PRESENTATIONS AT CONFERENCES/ MEETINGS

Durmaz E, Kerdaffrec E, Flatt T. "The forces maintaining a balanced inversion polymorphism", ESEB 2022, August 2022, Prague, Czech Republic – poster presentation (*upcoming*)

Durmaz E, "Phenotyping WG updates – Analyses", 12th DrosEU/DEST Workshop, June 2022, Belgrade, Serbia / online – invited speaker, chair (*upcoming*)

Durmaz E, "Phenotyping WG – Release of analyses", DrosEU WG Meeting, February 2022, Switzerland / online – chair – *GitHub access available upon request*

Durmaz E, Kerdaffrec E, Flatt T. "Experimental Evolution of an Adaptive Inversion Polymorphism", Evolution 2021, June 2021, USA / online – oral presentation

Durmaz E, "Phenotyping WG updates – data", 11th DrosEU Workshop, June 2021, Europe / online – invited speaker, chair – *GitHub access available upon request*

Kerdaffrec E, **Durmaz E**, Katsianis G, Flatt T. "Testing evolutionary forces maintaining a clinal inversion polymorphism", Evolution 2021, June 2021, USA / online – contribution, oral presentation

Durmaz E, Kerdaffrec E, Flatt T. "Experimental Evolution of an Adaptive Inversion Polymorphism", 62nd Annual Drosophila Research Conference, March 2021, Genetic Society of America, USA / online – poster presentation

Durmaz E. "The DrosEU phenotyping collaboration", A community-based approach to understanding *Drosophila* Evolution through Space and Time (DEST) Workshop, 62nd Annual Drosophila Research Conference, March 2021, Genetic Society of America, USA / online – invited speaker, chair

Durmaz E. "Patterns of Clinal adaptation in *Drosophila"*, Behaviour, Ecology, Environment and Evolution Seminar, University of Zurich, March 2021, Zurich, Switzerland / online – invited speaker

Durmaz E. "*Drosophila*'da enlemsel klinler ve adaptasyon" (in Turkish), University of Hacettepe, Department of Biology, January 2021, Ankara, Turkey / online – invited guest lecturer for Genetics

Kerdaffrec E, **Durmaz E**, Katsianis G, Flatt T. "Testing evolutionary forces maintaining a clinal inversion polymorphism", The Swiss Conference for Organismic Biology 2020, February 2020, Fribourg, Switzerland – contribution, oral presentation

Durmaz E. "Clinal adaptation in *Drosophila*", 14th Aykut Kence Evolution Conference, January 2020, Ankara, Turkey – invited speaker for academic session

Durmaz E. "Adaptasyon genetigi" (in Turkish), 14th Aykut Kence Evolution Conference, January 2020, Ankara, Turkey – invited speaker for public session

Durmaz E, Kerdaffrec E, Katsianis G, Flatt T. "Testing evolutionary forces maintaining a clinal inversion polymorphism", European Drosophila Research Conference (EDRC), September 2019, Lausanne, Switzerland – poster presentation

Demir E, Yagli SS, **Durmaz E**, Onder BS. "Seasonal immune response in a *Drosophila melanogaster* population", The Congress of the European Society for Evolutionary Biology (ESEB), August 2019, Turku, Finland – contribution, poster presentation

Durmaz E, Kerdaffrec E, Katsianis G, Flatt T. "Testing evolutionary forces maintaining a clinal inversion polymorphism", The Congress of the European Society for Evolutionary Biology (ESEB), August 2019, Turku, Finland – poster presentation

Durmaz E, Benson C, Kapun M, Schmidt P, Flatt T. "An inversion supergene in *Drosophila* underpins latitudinal clines in survival traits", The Swiss Conference for Organismic Biology 2019, February 2019, Zurich, Switzerland – poster presentation

Durmaz E. "A clinal polymorphism at *foxo* contributes to life-history adaptation in *Drosophila*", Society of Molecular Biology and Evolution (SMBE) Satellite Meeting, February 2019, Vienna, Austria – oral presentation (canceled)

Durmaz E. "The effects of clinal polymorphisms on *Drosophila* life history", University of Hacettepe, Department of Biology, January 2019, Ankara, Turkey / online – invited guest lecturer for Genetics

Durmaz E, Benson C, Kapun M, Schmidt PS, Thomas F. "A clinal inversion in *Drosophila* represents a life-history supergene", II Joint Congress on Evolutionary Biology, August 2018, Montpellier, France – poster presentation

Durmaz E, Benson C, Kapun M, Schmidt PS, Thomas F. "A clinal inversion in *Drosophila* represents a life-history supergene", Ecology and Evolutionary Biology Symposium, July 2018, Izmir, Turkey – oral presentation

Durmaz E, Benson C, Kapun M, Schmidt PS, Thomas F. "Effects of a clinal inversion on thermal life-history reaction norms in *Drosophila melanogaster*" 16th Congress of the European Society for Evolutionary Biology (ESEB), August 2017, Groningen, Netherlands – poster presentation

Durmaz E, Rajpurohit S, Betancourt N, Schmidt PS, Thomas F. "A clinal polymorphism in insulin signaling has pleiotropic effects on *Drosophila* life history" Evolution Meeting, June 2016, Austin, Texas, USA – oral presentation

Durmaz E, Rajpurohit S, Betancourt N, Schmidt PS, Thomas F. "A clinal polymorphism in insulin signaling has major pleiotropic effects on *Drosophila* life history" The Swiss Conference for Organismic Biology 2016, February 2016, Lausanne, Switzerland – poster presentation

Durmaz E, Rajpurohit S, Betancourt N, Schmidt PS, Thomas F. "A clinal polymorphism in insulin signaling has major pleiotropic effects on D*rosophila* life history", European Society for Evolutionary Biology (ESEB) XV meeting, August 2015, Lausanne, Switzerland – oral presentation

Durmaz E, Rajpurohit S, Betancourt N, Schmidt PS, Thomas F. "A clinal polymorphism in insulin signaling has major pleiotropic effects on *Drosophila* life history", Swiss Drosophila Meeting, 2015 April, Lausanne, Switzerland – poster presentation

Durmaz E, Rajpurohit S, Betancourt N, Schmidt PS, Thomas F. "Testing the Life History Effects of SNP Polymorphisms as Identified by an NGS Analysis of a Latitudinal Cline in *Drosophila*", Eukaryotic –Omics: Exploring and testing with next-generation sequencing, April 2014, Geneva, Switzerland – invited speaker

Hiroto Kameyama H, **Durmaz E,** Hanna G, Markow T. "Sperm length predicts female sperm loads in Drosophila species in the wild**",** 54th Annual Drosophila Research Conference, April 2013 Washington, DC. USA – contribution, poster presentation

Durmaz E, Ozsoy E, Markow T. "The effect of mating status on environmental stress factors in genetically different natural populations of *Drosophila subobscura (Drosophilidae, Diptera)*", 21th National Congress of Biology, September 2012, Izmir, Turkey – poster presentation

TEACHING RESPONSIBILITIES

2018 – now	Experimental Ecology – University of Fribourg
2018 – 2020	Advanced Topics in Ecology and Evolution – University of Fribourg
2018 – 2019	Biological Invasions and Trophic Interactions – University of Fribourg
2017	Introduction to Scientific Writing, Experimental Design, Evolution of Life History and Aging – University of Lausanne
2016	Molecular Genetics, Zoology, Microbiology, Introduction to Scientific Writing, Experimental Design, Evolution of Life History and Aging – University of Lausanne
2015	Molecular Genetics, Zoology, Introduction to Scientific Writing, Experimental Design, Evolution of Life History and Aging – University of Lausanne
2014	Molecular Genetics, Zoology, Introduction to Scientific Writing, Evolution of Life History and Aging – University of Lausanne
2013	Molecular Genetics, Zoology – University of Lausanne

SCHOLARSHIPS AND AWARDS

05/2016 Travel grant, Fondation l'Université de Lausanne

MEMBERSHIP IN PROFESSIONAL SOCIETIES/CONSORTIA

DrosEU (European Drosophila Population Genetics Consortium)

ESEB (European Society for Evolutionary Biology)

EKOEVO (Ecology and Evolutionary Biology Society of Turkey)

500WS (500 Women in Science Fribourg/Bern Pod)

SMBE (Society of Molecular Biology and Evolution)

TRAINING AND SUPERVISION OF STUDENTS

2022	Charlotte Suter, B.Sc. Thesis Project, University of Fribourg
2021	Cécile Spichtig, B.Sc. Thesis Project, University of Fribourg
2019 – 2021	Thibault Schowing, Training for lab assistantship, University of Fribourg
2020	Sarah Descloux, Training for lab assistantship, University of Fribourg
2020	Florian Baumgartner, B.Sc. Thesis Project, University of Fribourg
2019 – 2020	Ekin Demir, M. Sc. Thesis co-advisor, Hacettepe University
2019	Virginie Thieu, Training for lab assistantship, University of Fribourg
2018	Jeanne Bruelhart, B.Sc. Thesis Project, University of Fribourg
2016 - 2017	Clare Benson, Erasmus Program M.Sc. Placement, University of Lausanne

REVIEWER SERVICE

Scientific Reports, Molecular Ecology, Evolution, Evolution – Digests, Entomological Science, Molecular Genetics and Genomics, Journal of Gerontology

ADVANCED TRAINING

03/2022	Train the trainer, ELIXIR-GOBLET-SIB, Switzerland
06/2021	Increase your assertiveness in institutional power games, REGARD, Switzerland
02/2021	Facilitation techniques for working groups, REGARD, Switzerland
01/2021	Version control with Git, Swiss Institute of Bioinformatics, Switzerland
11/2015	Project Management for Research, Lausanne, Switzerland
03/2015	Time Management and Effectiveness, Lausanne, Switzerland
12/2014	Scientific Writing Clinic, Neuchatel, Switzerland
09/2014	Visiting scientist at McGregor Lab, training on embryonic injections and CRISPR/Cas9 genome editing techniques, Oxford Brookes University, Oxford, UK
04/2014	Visiting scientist at Schmidt Lab, training in geometric morphometric techniques, University of Pennsylvania, PA, USA

OTHER RESPONSIBILITIES

2022 – now	Member of Transcriptomics and Protein Evolution Working Group, DrosEU
08/2022	Co-organiser of "Integrating -omics approaches for eco-evolutionary research" Summer School, DrosEU/European Society of Evolutionary Biologist Special Topics Network, Prague, Czech Republic
2019 – now	Co-Leader of e-bulletin Working Group, EKOEVO
2019 – now	Co-Leader of Finances Working Group, 500WS Fribourg/Bern Pod, Switzerland
2019 – now	Co-Founder of 500WS Fribourg/Bern Pod, Switzerland
2018 – now	Co-Leader of Phenotyping and Functional Genetics Working Group, DrosEU
2018 – now	Member of Clinal and Seasonal Variation Working Group, DrosEU
2018 – now	Member of Population Genetics Working Group, DrosEU
2018 – now	Member of Gender Equality Working Group, EKOEVO
2019 – 2020	Organizational help for The Swiss Conference for Organismic Biology 2020
2019	Co-organiser of "The temporal dynamics of evolution" Symposium, Fribourg Ecology and Evolution Days, Fribourg, Switzerland
2018	Organizational help for The Annual Swiss *Drosophila* meeting, Fribourg, Switzerland
2015- 2017	PhD Representative on the behalf of University of Lausanne, CUSO DPEE
2015	Organizational help for European Society for Evolutionary Biology (ESEB) XV meeting, Lausanne, Switzerland
2014-2015-2016	Mysteres de UNIL, Lausanne, Switzerland – Participation in public outreach event organization
2011-2012	Co-organiser of the 1st /2nd Student Congress of Evolutionary Biology, Hacettepe University, Ankara, Turkey

ACADEMIC REFEREES AND MENTORS

Prof. Thomas Flatt
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Prof. Josefa González
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Dr. Martin Kapun
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Burgring 7, 1010 Wien, Austria
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