Matteo Tomasini

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Birthdate: 1989-11-21

Experience

Research

Mar 2021 – Present **Postdoctoral research fellow**, *Modelling of range expansions in marine environments and the Baltic Sea*, Department of Marine Sciences, University of Gothenburg, Principal Investigator: Prof. M. Rafajlović.

Sep 2019 – Dec 2020 **Postdoctoral research associate**, *Development of methods for statistical inference from patterns of isolation by distance*, Department of Integrative Biology, Michigan State University, Principal Investigator: Prof. G. Bradburd.

Feb 2015 – Jun 2019 **PhD student**, *On the theory of rapid adaptation in the presence of gene flow*, Interfaculty Bioinformatics Unit, Universität Bern, Supervisors: Dr. S. Peischl and Prof. L. Excoffier.

Teaching

Sep 2017 – Jun 2019 **Substitute lecturer**, *Applied Biostatistics I and II*, Universität Bern, Main lecturers: Dr. A. Hauser, Dr. S. Peischl.
Substitution of main lecturer in case of absence.

Sep 2015 – Jun 2019 **Teaching assistant**, *Applied Biostatistics I and II*, Universität Bern, Main lecturers: Dr. A. Hauser, Dr. S. Peischl.
Management of exercise sessions and support for MSc students, correction of exercise sheets.

Sep 2015, 2016, 2017 and 2018 **Teaching assistant**, *Introduction to R*, Universität Bern, Main lecturers: Prof. L. Excoffier, Dr. S. Peischl, Dr. V. Sousa.
Teaching assistant during a 5 days introductory course to the R language.

Education

Feb 2015 – Jun 2019 **PhD studies in ecology & evolution**, *Universität Bern*, Supervisors: Dr. S. Peischl and Prof. L. Excoffier.
Relevant courses and workshops: best practices in programming, introduction to markov models, machine learning. Main topic: theoretical population genetics.

Sep 2012 – Oct 2014 **MSc in physics (orientation theoretical physics)**, *Université de Genève*.
Relevant courses: cosmology, group theory, introduction to nanoelectronics, introduction to perturbative methods, non-linear dynamics, phase transitions and critical phenomena, quantum field theory.

Sep 2009 – Aug 2012 **BSc in physics**, *Université de Genève*.
Relevant courses: algebra, calculus; analytical mechanics, electrodynamics, experimental physics, general relativity, quantum mechanics, statistical mechanics, thermodynamics; introduction to C++.

Other relevant training

Jan 2020 SLiM Workshop, Cornell University, Ithaca, NY. Trainer: Dr. Ben Haller

Publications

2. **M. Tomasini**, S. Peischl, (2020), *When does gene flow facilitate evolutionary rescue?*, Evolution, 74(8), 1640 – 1653

1. **M. Tomasini**, S. Peischl, (2018), *Establishment of locally adapted mutations under divergent selection*, Genetics, 209(3), 885 – 895

Preprints

2a. **M. Tomasini**, M. Eriksson, K. Johannesson, M. Rafajlović (2022), *Species' ranges and the steepening-gradient hypothesis*, bioRxiv, https://doi.org/10.1101/2022.03.19.484973

1a. **M. Tomasini**, S. Peischl, (2021), *Evolutionary rescue in one dimensional stepping stone models*, bioRxiv, https://doi.org/10.1101/2020.10.29.360842

Grants

750€ International Council for the Exploration of the Sea (ICES) Early Career Scientist funding, Baltic Sea Science Congress 2021

Rejected with Seal of Excellence *The evolution of marine species in continuous space*, Marie Skłodowska-Curie Actions – Individual Fellowship 2020, Evaluation Score: 90.40%

Oral presentations

Oct 2021 *Range expansions along multiple environmental gradients*, Baltic Sea Science Congress 2021, Aarhus, Denmark

Oct 2021 *Range expansions along multiple environmental gradients*, Centre for Evolutionary Marine Biology Assembly, Tjärnö, Sweden

Jun 2019 *Effects of gene flow and fragmentation on evolutionary rescue*, Modelling Ecology & Evolution Zurich 2019, Zurich, Switzerland

Aug 2018 *Evolutionary rescue in structured habitats* (poster), Second Joint Congress of Evolutionary Biology, Montpellier, France

Jun 2016 *Evolutionary rescue in the stepping stone model* (poster), Mathematical and Computational Evolutionary Biology, Montpellier, France

Volunteering

Member Steering committee, Linnaeus Centre for Evolutionary Marine Biology

Reviewer Genetics, Mathematical Biosciences

Miscellaneous

Past research experience

Sep 2013 – Oct 2014 **MSc student**, *Effect of snow covering and ocean mixed layer on the irreversibility of sea ice retreat*, Institut des Sciences de l'Environnement, Université de Genève, Supervisors: Dr. M. Brunetti and Dr. S. Marshall.

Feb 2012 **BSc student**, *Measures of polarization of the solar light around the Balmer Jump*, Istituto Ricerche Solari Locarno and Université de Genève, Supervisors: Dr. M. Bianda and Dr. M. Audard.

IT skills

Regular user	Python, R; SLiM, STAN; LaTeX; git
Intermediate user	Matlab, Mathematica; Bash, C++
Basic knowledge	Julia; Maple; Jekyll, Django
Operating systems	**Ubuntu**; Windows
Editors	**Neovim**, **RStudio**, **VS Code**; IDLE, PyCharm

Languages

written / spoken	Italian	*Native language*
written / spoken	French	*Full professional working proficiency*
written / spoken	English	*Full professional working proficiency*
spoken	German	*Limited working proficiency*
written / spoken	Swedish	*Elementary proficiency (A1/A2)*

Extra-scientific activities

Mar 2012 – Present **Co-admin**, *Meccanica Quantistica: gruppo serio*.
Co-administrator and moderator of the largest Facebook page of quantum physics dissemination in Italian language ($\sim$ 32'000 subscribers).

Aug 2009 – Apr 2019 **Battery Sergeant Major**, *Swiss Armed Forces*.
Responsible for logistics in an artillery battery – in particular personnel, equipment, ammunition, health service and barracks administration – during the yearly one month service.

Nov 2015 – Jun 2018 **Head of refereeing**, *Swiss Tchoukball*.
Head of the refereeing commission and member of executive committee of the Swiss federation of tchoukball; development of refereeing in the sport and referees' formation.