EMILIANO TRUCCHI, brief curriculum vitae

ORCID: 0000-0002-1270-5273

Date of birth: 01/11/1977 Nationality: ITALIAN

Current position

2022-present, Associate Professor, Marche Polytechnic University (UNIVPM), Italy;

Research group

"Genomics Lab";

Education

2008 PhD in Ecology and Evolutionary Biology, Univ of Roma Tor Vergata, Italy 2004 Master in Biology, Univ of Roma3, Italy (Grade: 110/110 Cum Laude)

Postdoctoral appointments

2019-2022 RTDb, UNIVPM, Italy

2016-2019 Postdoc, RTDa, Univ of Ferrara, Italy

2014-2016 Researcher, Univ of Vienna, Austria

2011-2013 Researcher, Univ of Oslo, Norway

2009-2010 Postodoc, Univ of Roma Tor Vergata, Italy

Visiting Scientist

2014-present, Strasbourg Univ – CNRS, France

2014-2020, Univ of Oslo, Norway

Institutional Responsibilities

2019-present Delegate for the International affairs and the Erasmus program at Life and Environmental Sciences dept, UNIVPM

Other

2010-2016 Consultant expert for Environmental Risk Assessment of novel drugs in +25 centralized procedures for the European Medical Agency

PUBLICATIONS METRICS

- ISI publications since 2005 (first publication): 64 (+2 peer-reviewed preprints)

- Citations: 1900 (Scopus); 2750 (Google Scholar)

- H Index: 23 (Scopus); 27 (Google Scholar)

- In 22 ISI publications, ET is first, last or corresponding author

- 4 papers as first or last in PNAS, Nature Climate Change, Nature Communication, Nature Plants, + several papers as contributing author in top-ranked journals (Ecology Letters, Trends in Ecology and Evolution,

Systematic Biology, Molecular Biology and Evolution, Nature Reviews Genetics, Nature Communications) - Total Impact Factor of all publications: approximately 350

NATIONAL AND INTERNATIONAL ACKNOWLEDGMENTS

- National Scientific Qualification as Associate Professor in Genetics (2019) and as Full Professor (2023);

- Granted a Marie Curie Intra-European Fellowship (252252), European Commission.

- Expertise acknowledged by invition as member of; i) PhD dissertation committees at the univ of Oslo, Padova, Strasbourg, Antwerp, Milano, Warwick; ii) grant evaluation panels for several funding agencies in Europe and South America

- Nature Research Highlight for the paper Cristofari et al (2018) in Nature Climate Change journal.

- Two prizes of the Italian Society for Evolutionary Biology for the best paper published: Trucchi et al 2016 New Phytologist (€ 500) and Trucchi et al 2014, Proceedings B (€ 1000)

- Two prizes of the Botany and Biodiversity Research dept, Vienna univ, AT, for high impact paper published: 1) Cristofari et al (Trucchi as last author) 2016 in Nature Communication and 2) Gratton, Trucchi et al 2016, in Systematic biology

NATIONAL AND INTERNATIONAL GRANTS

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External fundings

2022 PNRR – NBFC (Spoke2). 54k€ 2022 PRIN (2022BXRY95). Local unit PI. 51k€ 2022 HORIZON-MSCA-2021-PF-01 (EC). PI. 184k€ 2017 PNRA (National Antarctic Program - CNR), Project number: 00164. PI. 118k€ 2011 FP7-PEOPLE-2009-IEF, ID: 252252 (EU). PI. 204k€

Internal fundings obtained as PI

2019-2024 Basic research funds at UNIVPM (RSA). Ca. 21k€ (3.6k€/year) 2017-2019 Basic research funds at Ferrara Univ (FAR). Ca. 6k€ (3.2k€/year) 2019-2024 Co-funding at UNIVPM, Pavia and Palermo Univ for 6 PhD fellowships. Ca. 400k€

Other minor external fundings as PI

2007 PhD research grant (Lazio Regional and Rome Province), co-PI. 15k€

RESEARCH ACHIEVEMENTS

Between 2011 and 2014, I established at the University of Oslo one of the first platforms in Europe for the implementation of Restriction-site Associated DNA (RAD) sequencing, becoming a landmark in Scandinavia for researchers studying evolutionary dynamics in non-model species. My expertise in non-model species genomics allowed me to design novel approaches and methodologies to estimate demographic histories (Trucchi et al 2014), to identify genome-wide methylation patterns (Trucchi et al 2016a), to test models of genetic diversity decay along the front of a biological invasion (Trucchi et al 2016b), to characterize transposable elements variation across individuals (Trucchi et al 2017), and to infer population structure (Malinsky et al 2018) using RADseq data.

Fully embracing the opportunities opened up by the availability of genomics data in non-model species, my research focuses on investigating neutral and adaptive evolutionary processes in natural populations of animals and plats, testing novel hypotheses in the study of eco-evolutionary dynamics as in the case of large penguins (Cristofari et al 2016, Cristofari et al 2018, Pirri et al 2022, Paris et al 2024, Trucchi et al 2025), and exploring innovative analytical frameworks to contrast neutral and selective processes in endangered (Benazzo et al 2017, Bertorelle et al 2022) or domesticated species (Trucchi et al 2021), using both modern and ancient whole-genome data. Some of my work raised a broad interest in the public as well as in rather distant research fields like physical oceanography (Trucchi et al 2019a).

Research expeditions

2007: Morocco; 2011: South Africa; 2018: Crozet archipelago (Terres australes et antarctiques françaises). + several field campaigns in Italy.

MANAGEMENT

Experience in planning and managing research projects involving several people and co-authors, and in the organization of international workshops, conferences and summer schools.

INVITED PRESENTATIONS

At research institutions: Univ of Aarhus, Univ of South Bohemia, KLIVV, VetMedUni Vienna, Queensland Univ, Australian Rivers Institute, Griffith Univ, Oslo Univ, Colombo Univ; At international scientific meetings and advanced schools: ForBIO (Olso), RADseq-Unimi (Edolo), sEpiDiv (Leipzig), BIOM Spring Camp (Koněšín), SIBE winter workshop on selection inference (Ferrara), 40th New Phytologist Symposium (Vienna), *SIBE/IRSAE* summer school (San Michele all'Adige), Workshop on Genomics (Cesky Krumlov), NordBio (Bødø) 2020-2022-2024; At international conferences: ESEB2013 (Lisbon), FISV2014 (Pisa), ESEB2015

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(Lausanne), ESEB2017 (Groningen), GfÖ 2015 (Göttingen) SIBE2008 (Alghero), SIBE2015 (Bologna), SIBE2017 (Roma), SIBE2019 (Padua), POPBIO 2022 (Bolzano), SCBItaly-ECR 2025.

ACADEMIC ACTIVITIES

Journal peer-review activity

PNAS, Molecular Ecology, Molecular Ecology Resources, Molecular Phylogenetics and Evolution, Scientific Reports, Frontiers in Ecology and Evolution, Methods in Ecology and Evolution, Heredity, BMC Evolutionary Biology, Conservation Genetics, Ecology and Evolution, PlosOne, Journal of Evolutionary Biology, Genome Biology and Evolution, Italian Journal of Zoology.

Grant evaluation panels

Consejo Nacional de Ciencia y Tecnología (CONICYT), Chile; Biotechnology and Biological Sciences Research Council (BBSRC), UK; Swiss National Science Foundation (SNSF), Switzerland.

Other Academic activities and boards of scientific societies

2022. Coordinator of the organizing committee of the SIBE (Italian Society for Evolutionary Biology) 2022 meeting

2019-2023. Member of the organizing committee of the SMBE (Society for Molecular Biology and Evolution) 2023 meeting

2017-2019 Member of the Scientific Board of the PhD program in Evolution and Ecology, Univ of Ferrara 2015-2019 and 2022-2024 Member of the Scientific Council of the Italian Society for Evolutionary Biology

TEACHING AND TUTORING

Univ courses

2023-present. Genomics Lab, 6 ECTS, UNIVPM

2020-present. Marine Genomics, 6 ECTS, IMBRSea International Master, UNIVPM

2019-2022. Applied Genetics, 6 ECTS, UNIVPM

2018 Biostatistics Laboratory, 6 ECTS, UNIFE

2009-2010 Introduction to Biodiversity, Zoology and Evolution, 6 ECTS, Roma TorVergata Univ Supervision and mentoring of students and Post-Docs projects

5 Postdocs (2 ongoing), 12 PhD students (3 ongoing), 17 Master students (4 ongoing) at the following Institutions: DISVA, UNIVPM, IT; Life Sciences and Biotechnology dept, Ferrara univ, IT; Botany and Biodiversity Research dept, Vienna univ, AT; CEES, Biosciences dept, Oslo univ, NO.

Workshops

Co-director of the Workshop on Population and Speciation Genomics. Cesky Krumlov Czech Rep in 2016, 2018, 2020, 2022, and 2025.