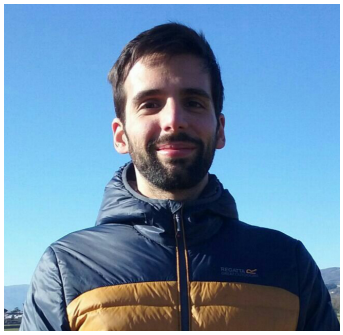
EMILIO BERTI



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SUMMARY

I am a theoretical ecologist with a passion for math and computing. I am a very fast learner and I have worked in many different fields of biology, from the microscopic scale of muscle physiology to the global scale of vertebrates macroecology. I have an strong quantitative background, with expertise in mathematical and statistical modelling of complex systems using big databases at large spatio-temporal scales. I have a comprehensive knowledge of traditional statistical methodologies, e.g. linear regression, and with cutting-edge algorithms such as machine learning. I have outstanding programming skills, particularly in optimizing large computations using Geographic Information Systems (GIS). I am fluent in writing and spoken English skills and I have good communication skills in scientific and daily settings. I can propose and develop new ideas independently and have a very collaborative personality.

WORK HISTORY

PostDoctoral researcher *October 2020 – Present*
Theory in Biodiversity Sciences
German Centre for Integrative Biodiversity Research (iDiv)
Leipzig, Germany

Scientific consultant *May 2020 – July 2020*
Department of Bioscience
Aarhus University
Aarhus, Denmark

Teaching assistant *February 2017 – April 2020*
Department of Biology
Aarhus University
Aarhus, Denmark

EDUCATION

PhD *February 2017 – June 2020*
Section of Ecoinformatics and Biodiversity
Department of Biology
Aarhus University
Aarhus, Denmark

Visiting PhD student *Fall 2018*
Department of Ecology and Evolution
University of Chicago
Chicago, IL

MSc cum laude in Biology *2013 – 2016*
Department of Ecology and Evolution
University of Florence
Florence, Italy

BSc in Biology *2009 – 2012*
Department of Physiology
University of Florence
Florence, Italy

POSTGRADUATE COURSES

"Species Distributions Modelling" *2019*
Evora, Portugal – Lecturers: Prof. Miguel Araújo and Dr. Babak Naimi
"Megafauna ecology – shaping past, present and future ecosystems." *2019*
Aarhus, Denmark
"Mixed models" *2019*
Aarhus, Denmark – Lecturer: Prof. Rodrigo Labouriau
"Writing and Speaking Science in English for Biology Students" *2019*
Aarhus, Denmark – Lecturer: Prof. Brian Sorrell
"Ecosystem roles of megafauna in the past, present, and future" *2017*
Aarhus, Denmark
"Mediterranean School of Complex Networks (MSCx)" *2017*
Salina, Italy

SKILLS

Language
Italian (native), English (fluent), Danish (beginner)
Programming
R (expert), bash (expert), python (proficient), C (proficient), julia (proficient), sqlite (proficient), html (proficient)
Software
Linux/GNU, Rstudio, Juno, Anaconda, Jupyter, QGIS, LaTeX, Markdown, Pandoc, Git version control, GitHub, Bitbucket, Overleaf
Methods
Statistics, regression analysis, effect sizes, mixed models, variables selection, PCA, ordination and classification, optimization, machine learning, network analysis, mathematical modelling, extrapolation and forecasting, species distribution models, environmental niche modeling, spatial modeling, geographic information systems (GIS), demographic projections, quantitative genetic, big data, data visualization, data science, APIs, automation.

TEACHING & ORGANIZED WORKSHOPS

Teaching Assistant
Statistical and Geospatial Modelling (2019)
Behavioural Biology (2018, 2019)
Geographic Information System (2017)
Organized Workshops
"Cleaning online repository data for use in biogeography and macroecology" (2019)
"Running a species distribution model in R." (2019)
"A (very) gentle introduction to Linux." (2019)

PUBLICATIONS

Berti, E. & Svenning, J.C. (2020). Megafauna extinctions have reduced biotic connectivity worldwide. *Global Ecology and Biogeography*. DOI: 10.1111/geb.13182.

Berti, E., Monsarrat, S., Munk, M., Jarvie, S., & Svenning, J.C. (2020). Body size is a good proxy for vertebrate charisma. *Biological Conservation*. DOI: 10.1016/j.biocon.2020.108790.

LINKS

- Google Scholar profile
- Personal website
- ORCiD
- LinkedIn
- GitHub