Susy Echeverría-L

Biodiversity and Public Health Research Consultant

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Education

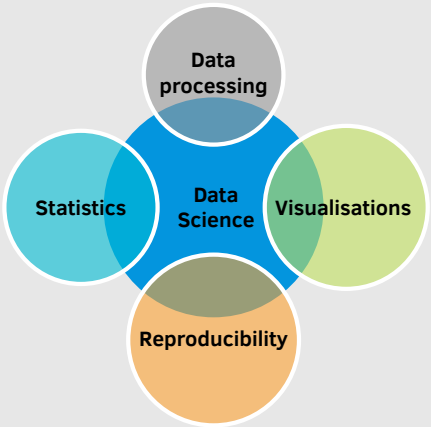
PhD in Life Science
Imperial College London
The Natural History Museum
2013 - 2017 | London, UK.

MRes Biodiversity, Informatics and Genomics (Distinction)
Imperial College London
2012 - 2013 | Silwood Park, Ascot, UK.

BSc in Biology (1st class honours)
Universidad Industrial de Santander
2004 - 2010 | Bucaramanga, Colombia.

Technical Skills

Overview



Programming

R

GIS • Advanced statistics

git • LaTeX

Python • HPC cluster scripts • Shell

Experience

2024 - Present
Research Consultant — Imperial College London, UK

- Vaccine Impact Modelling Consortium (VIMC). PI: Prof.Caroline Trotter and Line manager: Dr Katy Gaythorpe
- Collaborated with the science and policy team at VIMC to analyse and incorporate the impact estimates of various vaccines assessed in the GAVI's Vaccine Investment Strategy 2024.

2017 - Present
NSF Postdoctoral Associate — Kenyon College, OH, USA

- Explore and analyse the distribution of ca. 85000 plant species including approximately 9 million geographic points.
- Research the consequences of habitat stability on current patterns of plant diversity using the distribution and phylogenetic relationships of ca. 24000 plant species.
- Carry out paleohabitat reconstructions using machine learning methods
- Co-teaching of the BSc course "Global Ecology and Biogeography"
- Teach and organise lectures and assignments for the Ecoinformatics course which include topics such as: Introduction to data science R, data managing and processing, data visualization, spatial analysis and reproducibility `https://globalecologybiogeography.github.io/Ecoinformatics/`

2018 - Present
Visitor scholar — University of Pittsburgh, PA, USA

- PI: Dr. Justin Kitzes
- Explore and analyse time-series spatial points patterns from ca. 300 plant species to predict extinction risks

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NSF Postdoctoral Associate — Kenyon College, OH, USA

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2017
Lecturer and demonstrator — The Natural History Museum, London, UK

- "Phylogenetic approaches to studying diversification" lecture for the Methods in Macroecology and Macroevolution course of the MSc Taxonomy and Biodiversity program
- Demostrator on the practical "Fossils in phylogenetics" for the Methods in Macroecology and Macroevolution course of the MSc Taxonomy and Biodiversity program

2013 - 2017
Demonstrator — Imperial College London, London, UK

- Demonstrator on the Computational Biostatistics BSc course
- Demonstrator on the Ecology and Evolution BSc course
- Demonstrator on the Biodiversity and Conservation Biology BSc course
- Practicals included Introduction to R, Fundamentals of statistics in R, Phylogeny of mammals and pines, IUCN Red List, Biodiversity among lineages and over time, Delimiting species, Extinction risk patterns and correlates

Selected publications

2018 **Echeverría-Londoño S.,** Enquist, BJ, Neves, DM, Violle, C and Kerkhoff, AJ. Plant functional diversity and the biogeography of biomes in North and South America, Frontiers in Ecology and Evolution, 6(DEC), 219.

2018 **Echeverría-Londoño S.,** Särkinen, T., Fenton, I. S., Knapp, S., & Purvis, A. Dynamism and context dependency in the diversification of the megadiverse plant genus Solanum L.(Solanaceae). bioRxiv, 348961.

2016 **Echeverría-Londoño S.,** Newbold, T., Hudson, L. N., Hill, S. L., Contu, S., Lysenko, I., ... & Purvis, A. Modelling and projecting the response of Colombian biodiversity to land-use change. Diversity and Distributions, 22: 1099-1111.

2015 Newbold, T., Hudson, L. N., Hill, S. L., Contu, S., Lysenko, I., Senior, R. A., Bennet D. J., Choimes A., Collen, B., Day, J., De Palma, A., Diaz, S., **Echeverría-Londoño S.,** ... & Purvis, A. Global effects of land use on local terrestrial biodiversity. Nature, 520(7545), 45-50.

2011 **Echeverría-Londoño S.,** & Miranda-Esquivel, D. R. MartiTracks: A geometrical approach for identifying geographical patterns of distribution. PLoS ONE 6(4): e18460.