Susy Echeverría-L

NSF Postdoctoral associate

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Education

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

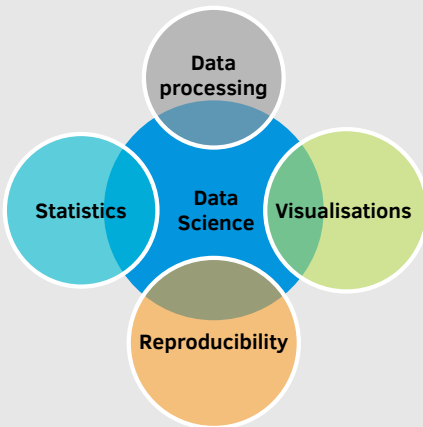**MRes Biodiversity, Informatics and Genomics** (Distinction)
Imperial College London
2012 - 2013 | Silwood Park, Ascot, UK.

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

| 2018 - Present | **Visitor scholar** | University of Pittsburgh |

- PI: Dr. Justin Kitzes
- Exploring time-series spatial point patterns of ca. 300 plant species to understand and predict extinction risk.

| 2017 - Present | **NSF Postdoctoral Associate** | Kenyon College |

- PIs: Prof. Andrew Kerkhoff and Prof. Brian J Enquist
- Researching the consequences of climatic stability, and biome age and area effects on seed plant diversity using an extensive collection of geographic distribution of plants in the New World
- Carrying out paleoclimate reconstructions using machine learning methods such as random forest to calibrate biogeographic biomes inferences
- Teaching and organizing lectures and assignments for the Ecoinformatics course including Introduction to data science R, data managing and processing, data visualization, spatial analysis and reproducibility; `https://globalecologybiogeography.github.io/Ecoinformatics/`

| 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 |

- 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.