

From: Soledad De Esteban-Trivigno
Subject: Advanced course on Model Based Statistical Inference in Biogeography, Dec 11-15, Barcelona (Spain)

Dear colleagues,

This course might be of interest to the people in this list: MODEL-BASED STATISTICAL INFERENCE IN ECOLOGICAL AND EVOLUTIONARY BIOGEOGRAPHY - 2nd Ed.

Instructors: Dr. Dan Warren (Macquarie University, Australia) and Dr. Matthew Van Dam (California Academy of Sciences, USA).

Place: Els Hostalets de Pierola, Barcelona (Spain).

Dates: December 11th-15th, 2017.

More information: <http://www.transmittingscience.org/courses/biogeography/model-based-statistical-inference-ecological-evolutionary-biogeography/>

PROGRAM

Monday;

Organization and introductions.

Spatial data in R.

Point data, vector data, and raster data.

GBIF, the Global Biodiversity Information Facility.

Interacting with Google Maps.

Working with raster and vector data.

Tuesday;

Ecological biogeography.

ENM / SDM concepts and assumptions.

Dismo.

Conceptual issues with ecological inferences from distribution data.

Simulating species occurrence data.

Wednesday;

Testing ecological hypotheses via Monte Carlo methods.

ENMTools R package.

Ecospat.

Questions of taxonomic scale.

Incorporating niche conservatism into the modelling process.

Thursday;

Phylogenetic biogeography.

How to read and use phylogenies.

Short history of historical biogeography methods and assumptions.

Likelihood-based statistical model choice.

New probabilistic models for historical biogeography in BioGeoBEARS.

Biogeographical stochastic mapping.

Using BioGeoBEARS and interpreting results.

Including geographical and environmental distance in models.

Using QGIS basics and creating paleo areas.

Friday;

Integrating in phenology (NCDF & other data sources) in SDM and trait evolution.

Integrating biogeography with biotic interactions (e.g. insect host plant interactions).

Running analyses over multiPhylo objects (posterior distribution) and interpreting results.

Help session for student projects.

Wrap-up.

Organized by: Transmitting Science, the Centre de Restauració i Interpretació Paleontològica (CRIP) and the Institut Català de Paleontologia M. C.

With best regards

Sole

Soledad De Esteban-Trivigno, PhD.

Scientific Director

Transmitting Science

www.transmittingscience.org

