'Spatial analysis of ecological data using R - Funding available'

PR STATISTICS ARE PLEASED TO ANNOUNCE THAT THROUGH THEIR FUNDING SCHEME THEY CAN CONTRIBUTE TOWARDS TUITION FEES AND ACCOMMODATION WITH A LIMITED NUMBER OF 'ALL INCLUSIVE PLACES' AVAILABLE AT £450.00 (+ VAT) Fees have been subsidised by 40% from £750 (+VAT).

Applications should be sent to oliverhooker@prstatistics.com and contain the following.
1. Full name
2. Institute name
3. PhD subject title or Post doc research questions
4. Do you hold a funded position
5. 150 words why this course would be relevant to your research or how it would help.

Application deadline is Monday 14th November

Full course details are given below

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_spatial-2Danalysis-2Decological-2Ddata-2Dusing-2Dr-2D&d=CwIF-g&c=Ngd-ta5yRYsqeUsEDgxhcqsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=f1tm-VbmdBiVknv8c2843dKNHN3_5igPo8OVsqxlgdU&s=lTjcDhnVY2J4wfNWjtttvqk_WDseT_1sILUvebr6Wls&e=spae04/

Monday 21st – Classes from 09:00 to 17:00
Elementary concepts.
Module 1: Introductory lectures and practical; this will cover the key questions in spatial ecology, the main types of data on species distributions, concepts and challenges and different types of environmental data; useful concepts from statistics; Generalised Linear Models.
Module 2: GIS tools in R: Types and structure of spatial objects in R, generating and manipulating spatial objects, projections and transformations, cropping and masking spatial objects, extracting covariate data and other simple GIS operations in R, optionally plotting simple maps.

Tuesday 22nd – Classes from 09:00 to 17:00
Overview of basic analyses.
Module 3: Density estimation, Spatial autocorrelation, Smoothing, Kernel Smoothers, Kriging, Trend-fitting (linear, generalised linear, generalised additive models).
Module 4: Habitat preference, Resource selection functions, MaxEnt: What's it all about? Overview and caveats related to Niche models

Wednesday 23rd – Classes from 09:00 to 17:00
Challenging problems.
Module 5: Analysing grid data, Poisson processes, Occupancy models, Use-availability designs.
Module 6: Analysing telemetry data, Presence-only data, Spatial and serial autocorrelation, Partitioning variation by mixed effects models.
Thursday 24th – Classes from 09:00 to 17:00
Challenging problems.

Module 7: Analysing transect data, Detection functions for point and line transects, Using covariates in transect models. Afternoon for catch up and/or excursion.

Friday 25th – Classes from 09:00 to 17:00
Challenging problems.
Module 8: Advanced methods, Generalised Estimation Equations for difficult survey designs, Generalised additive models for habitat preference, Dealing with boundary effects using soap smoothers, Spatial point processes with INLA.

Saturday 26th – Classes from 09:00 to 16:00
Predictions and applications.
Module 9: Prediction, Validation by resampling, Generalised Functional Responses for species distribution, Quantifying uncertainty, Dealing with the effects of population density.
Module 10: Applications, Designing protected areas, thinking about critical habitat, Representing uncertainty.

Thank you, Oliver Hooker

Up-coming courses
1.   SPATIAL ANALYSIS OF ECOLOGICAL DATA USING R (November)
2.   ADVANCING IN STATISTICAL MODELLING USING R (December)
3.   MODEL BASED MULTIVARIATE ANALYSIS OF ECOLOGICAL DATA USING R (January)
4.   ADVANCED PYTHON FOR BIOLOGISTS (February)
5.   STABLE ISOTOPE MIXING MODELS USING SIAR, SIBER AND MIXSIAR USING R (Feb/Mar)
6.   NETWORK ANALYSIS FOR ECOLOGISTS USING R (March)
7.   MULTIVARIATE ANALYSIS OF SPATIAL ECOLOGICAL DATA (April)
8.   INTRODUCTION TO R AND STATISTICS FOR BIOLOGISTS (CHINA, April)
9.   ADVANCING IN STATISTICAL MODELLING USING R (CHINA April)
10.   INTRODUCTION TO BAYESIAN HIERARCHICAL MODELLING (May)
11.   INTRODUCTION TO GEOMETRIC MORPHOMETRICS USING R (June)

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