

From: Oliver Hooker
Subject: UK.AdvancingInStatisticalModellingForEvolutionaryBiologistsAndEcologistsUsingR.Dec4-8

"Advancing in statistical modelling for evolutionary biologists and ecologists using R"

Delivered by Dr. Luc Bussiere and Dr. Tom Houslay

www.prstatistics.com/course/advancing-statistical-modelling-using-r-advr07/

This course will run from 4th – 8th December 2017 at Margam Discovery Centre, Wales

The course is aimed at biologists with a basic to moderate knowledge in R. The course content is designed to bridge the gap between basic R coding and more advanced statistical modelling. This five day course will consist of series of modules, each lasting roughly half a day and comprised of lectures and practicals designed to either build required skills for future modules or to perform a family of analyses that is frequently encountered in the biological literature.

Course content is as follows

Monday 4th – Classes from 09:00 to 17:00

Course introduction; techniques for data manipulation, aggregation, and visualisation; introduction to linear regression.
Packages: {tidyr}, {dplyr}, {ggplot2}

Tuesday 5th – Classes from 09:00 to 17:00

Linear models (diagnostics, collinearity, scaling, plotting fitted values); fitting and interpreting interaction terms; model selection and simplification; general linear models and ANCOVA.
Packages: {stats}, {car}

Wednesday 6th – Classes from 09:00 to 17:00

Generalized linear models (logistic and Poisson regression); predicting using model objects and visualizing model fits.
Packages: {broom}, {visreg}, {ggplot2}

Thursday 7th – Classes from 09:00 to 17:00

Mixed effects models in theory and practice; visualising fixed and random effects.
Packages: {lme4}, {broom}, {ggplot2}, {sjPlot}

Friday 8th – Classes from 09:00 to 16:00

Fitting nonlinear functions (polynomial & mechanistic models); brief introduction to more advanced topics & combining methods (e.g., generalised linear mixed effects, nonlinear mixed effects, and zero-inflated and zero-altered models).
Packages: {nlstools}

Please email any inquiries to oliverhooker@prstatistics.com or visit our website www.prstatistics.com

Please feel free to distribute this material anywhere you feel is suitable

Our other courses- email oliverhooker@prstatistics.com for details

1. ECOLOGICAL NICHE MODELLING USING R #ENMR

16th – 20th October 2017, SCENE, Scotland, Dr. Nefali Sillero

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_ecological-2Dniche-2Dmodelling-2Dusing-2DR-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=P2z9RRqG87ZoaUMvQ19GPTx8-PbTle1emc6C2kR5wJ8&e=enmr01/

2. INTRODUCTION TO BIOINFORMATICS USING LINUX #IBUL

16th – 20th October, SCENE, Scotland, Dr. Martin Jones

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prinformatics.com_course_introduction-2Dto-2Dbioinformatics-2Dusing-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=wD_YaQyCoLlHBRcnUYfmbusc_QJH8cl6Y2_jgPseUzQ&e=linux-ibul02/

3. REPRODUCIBLE DATA SCIENCE FOR POPULATION GENETICS #RDPG

23rd – 27th October 2017, Wales, Dr. Thibaut Jombart, Zhian Kavar

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_reproducible-2Ddata-2Dscience-2Dfor-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=WmY8r5r6LKhmrX2b4t1f9SvTQOG5KJcrYc6_KCJdFfc&e=population-genetics-rdp01/

4. STRUCTURAL EQUATION MODELLING FOR ECOLOGISTS AND EVOLUTIONARY BIOLOGISTS USING R #SEMR

23rd – 27th October 2017, Wales, Prof Jarrett Byrnes, Dr. Jon Lefcheck

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_structural-2Dequation-2Dmodelling-2Dfor-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=8ZvJOWXEGCwjsXNFHEC_4-sDr9pHh7T7H10MOIH8&e=ecologists-and-evolutionary-biologists-semr01/

5. LANDSCAPE (POPULATION) GENETIC DATA ANALYSIS USING R #LNDG

6th – 10th November 2017, Wales, Prof. Rodney Dyer

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_landscape-2Dgenetic-2Ddata-2Danalysis-2Dusing-2DR-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=c-vgeKomiT2DScyey51Ty2PQ8_q0p89MMs2lp7gyod1M&e=ldng02/

6. APPLIED BAYESIAN MODELLING FOR ECOLOGISTS AND EPIDEMIOLOGISTS #ABME

20th – 25th November 2017, SCENE, Scotland, Dr. Matt Denwood

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_applied-2Dbayesian-2Dmodelling-2Decologists-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=Vrg69GJ5auUml9hWMt4w6Cw8KYKZmML5oNQGQGmmE&e=epidemiologists-abme03/

7. INTRODUCTION TO PYTHON FOR BIOLOGISTS #IPYB

27th Nov – 1st Dec, Wales, Dr. Martin Jones

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prinformatics.com_course_introduction-2Dto-2Dpython-2Dfor-2Dbiologists-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=UHHMe7mdtnyusmy7wRiGhA9gadQxU-b98HbbGi7E1U&e=ipyb04/

8. ADVANCING IN STATISTICAL MODELLING USING R #ADVR

4th – 8th December 2017, Wales, Dr. Luc Bussiere, Dr. Tom Houslay, Dr. Ane Timenes Laugen,

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_advancing-2Dstatistical-2Dmodelling-2Dusing-2DR-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=0XtuugMgd0lRkVWSqta81lijIK_t8hVnoJ5jonpnGRk&e=advr07/

9. INTRODUCTION TO BAYESIAN HIERARCHICAL MODELLING #IBHM

29th Jan – 2nd Feb 2018, SCENE, Scotland, Dr. Andrew Parnell

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_introduction-2Dto-2Dbayesian-2Dhierarchical-2D&d=DwIF-g&c=Ngd-ta5rYsqeUsEDgxcqY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzh2HxZT0AqoiqLvxfeeaTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUWcRnA&s=KrTCTg1ffZGder4RCuIgfEbPkhUjuHm53PT-0qTprA&e=modelling-using-r-ibhm02/

10. PHYLOGENETIC DATA ANALYSIS USING R #PHYL

28th Jan – Feb 2nd 2018, SCENE, Scotland, Dr. Emmanuel Paradis

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_introduction-2Dto-2Dphylogenetic-2Danalysis-2D&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=vOx9HQ2sSxqXM0PU2QfFRPkIkaSew5l3aTPXuZec&e=with-r-phyg-phy102/

11. MOVEMENT ECOLOGY #MOVE

19th – 23rd February 2018, Wales, Dr Luca Borger, Dr Ronny Wilson, Dr

Jonathan Potts

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_movement-2Decology-2Dmove01_&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=HW63Gr9zh-phEiWXf7zF0hZPfcqLhUjPzW7XYXCSE&e=

12. GEOMETRIC MORPHOMETRICS USING R #GMMR

19th – 23rd February 2018, Wales, Prof. Dean Adams, Prof. Michael Collyer,

Dr. Antigoni Kaliontzopoulou

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_geometric-2Dmorphometrics-2Dusing-2Dr-2Dgmmr01_&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=hN6dFPEN5fcRWkcdscU-RDW_vXsEeZakAL7hduBetU&e=

13. FUNCTIONAL ECOLOGY FROM ORGANISM TO ECOSYSTEM: THEORY AND

COMPUTATION #FEER

5th – 9th March 2018, SCENE, Scotland, Dr. Francesco de Bello, Dr. Lars

Götzenberger, Dr. Carlos Carmona

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_functional-2Decology-2Dfrom-2Dorganism-2Dto-2D&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=hPTVbmw_5kefEaQnedqK3Y7TTO6jW7EpqLwOfCjL&e=ecosystem-theory-and-computation-feer01/

14. SPATIAL PRIORITIZATION USING MARXAN #MRXN

5th – 9th March 2018, Wales, Jennifer McGowan

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_introduction-2Dto-2Dmarxan-2Dmrnx01_&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=FmqGauKP1idnmfXcQab62uzNMSooiB8-LcS2QLJqIQ&e=

15. ECOLOGICAL NICHE MODELLING USING R #ENMR

12th – 16th March 2018, SCENE, Scotland, Dr. Neftali Sillero

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_ecological-2Dniche-2Dmodelling-2Dusing-2Dr-2D&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=P2z9RqG87ZoaUMvQ19GPTx8-PbTlemc6C2kr5wJ8&e=enmr02/

16. BEHAVIOURAL DATA ANALYSIS USING MAXIMUM LIKLIHOOD IN R #BDML

19th – 23rd March 2018, Scotland, Dr William Hoppitt

COMING SOON www.PSstatistics.com

17. NETWORK ANALYSIS FOR ECOLOGISTS USING R #NTWA

9th – 13th April 2018, SCENE, Scotland, Dr. Marco Scotti

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_network-2Danalysis-2Decologists-2Dnwa02_&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=ToSp4iOHVGGwS78mW4ojRll76K3Kns-5XPnIN0s&e=

18. INTRODUCTION TO STATISTICAL MODELLING FOR PSYCHOLOGISTS USING R

#IPSY

16th – 20th April 2018, SCENE, Scotland, Dr. Dale Barr, Dr Luc Bussierre

COMING SOON www.PSstatistics.com

19. MULTIVARIATE ANALYSIS OF ECOLOGICAL COMMUNITIES USING THE VEGAN

PACKAGE #VGNR

23rd – 27th April 2018, SCENE, Scotland, Dr. Peter Solymos, Dr. Guillaume

Blanchet

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_multivariate-2Danalysis-2Dof-2Ddecological-2D&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=CbrcWVq7hGyTv2rpr_Q5T2bXvLITsIE1R7F39LlXkKu&e=communities-in-r-with-the-vegan-package-vgnr01/

20. QUANTITATIVE GEOGRAPHIC ECOLOGY: MODELING GENOMES, NICHES, AND

COMMUNITIES #QGER

30th April – 4th May 2018, SCENE, Scotland, Dr. Dan Warren, Dr. Matt

Fitzpatrick

COMING SOON www.PRstatistics.com

21. INTRODUCTION TO MIXED MODELS FOR ECOLOGISTS #IMMR

14th – 18th May 2018, CANADA (QUEBEC) STILL to be confirmed, Prof Subhash

Lele, Dr. Guillaume Blanchet

22. STABLE ISOTOPE MIXING MODELS USING SIAR, SIBER AND MIXSIAR #SIMM

28th May – 1st June 2018, CANADA (QUEBEC) STILL to be confirmed Dr. Andrew

Parnell, Dr. Andrew Jackson

23. SOCIAL NETWORK ANALYSIS FOR BEHAVIOURAL SCIENTISTS USING R #SNAR

2nd – 5th 12th July 2018, Prof James Curley

COMING SOON www.PSstatistics.com

24. MODEL BASE MULTIVARIATE ANALYSIS OF ABUNDANCE DATA USING R #MBMV

8th – 12th July 2018, Prof David Warton

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.prstatistics.com_course_model-2Dbase-2Dmultivariate-2Danalysis-2Dof-2D&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=oNd86BgXm77uzLQJZqAvgn_BTMUEwb2gBZbCSzZB4&e=abundance-data-using-r-mbmv02/

25. EUKARYOTIC METABARCODING

23rd – 27th July 2018, Wales, Dr. Owen Wangersten

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.prstatistics.com_course_eukaryotic-2Dmetabarcoding-2Deukb01_&d=DwIF-g&c=Ngd-ta5yRysqeUsEDgxcqcsYYY1Xs5ogLxWPA_2Wlc4&r=e2OJ1azRFn8ihJzb2HxZT0AqoiqLvxfeeTyN59ZLoI&m=CirbhhkdStnlamxy09MqEsJL41_7Glxe77IPUwCnRnA&s=pZkqCrUwqbfAFmNL0YmErR2UGJhy0tsBuFZgluDJcQcQ&e=

26. ADVANCES IN MULTIVARIATE ANALYSIS OF SPATIAL ECOLOGICAL DATA USING

R #MVSP

Prof. Pierre Legendre, Dr. Olivier Gauthier - Date

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Oliver Hooker PhD.

PR statistics

2017 publications -

Ecosystem size predicts eco-morphological variability in post-glacial diversification. Ecology and Evolution. In press.

The physiological costs of prey switching reinforce foraging specialization. Journal of animal ecology.

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