

R201

Advanced analyses in conservation using R

Wednesday 21st – Thursday 22nd October 2009

Course directed by: **Dr. Mark Gardener**

This course is designed to help you undertake complex analyses using R, a powerful (and free) analytical program. It builds on the introductory R course (R101) and assumes that you are familiar with the program (although we begin with a brief reminder).

The introductory course (R101) covered a wide range of analytical methods but necessarily these were covered briefly since the main aim was familiarization with the R program. In this course we examine a few useful methods in rather more detail. We will start with a brief refresher in using R. Next we will look at analysis of variance and complex 'designs'. Then we will look at multiple regression and include stepwise modelling. Lastly we will look at generalized linear modelling (GLM) as this allows use of presence/absence data.

Main themes covered:

Overview of basic statistics and using R.

One-way Analysis of variance (ANOVA).

Post-Hoc testing.

Multi-way ANOVA.

Kruskal Wallis (non-parametric ANOVA).

Multiple Regression (including stepwise analysis).

Generalized linear modelling (GLM).

R is free and Open Source software. If you have not already got a copy on your computer, copies of the program (from the R foundation for statistical computing) will be provided along with additional analysis packages as required.

This course is suitable for anyone who would like to analyse and present their biological data professionally using what is fast becoming a recognised academic standard package. Benefits include:

- Scientific rigour and credibility
- A professional approach to data handling and presentation
- Enhancing analysis skills to apply to many conservation situations
- Enhanced awareness of the correct use of a statistical approach.

It is designed specifically for the conservation sector. Example participants on similar courses have included Masters students and those employed or volunteering for Government Agencies, Recording Societies, Ecological Consultancies, Wildlife Trusts and County Councils.

What to Bring:

A laptop with administrator rights and a 'Memory Stick'. Preston Montford shop stocks memory sticks and can provide a laptop **if notified in advance**

Courses in data analyses in Conservation and Ecology

These courses are designed to form an integrated approach to data handling and analyses in conservation biology and ecology.

All courses will be practical and inter-active and will focus on examples from a range of biological recording areas.

Examples and handout material will be provided on a CD-ROM with a course file along with software as required.

There are 6 courses in the series:

D101: Data analyses in conservation biology.

10th-11th August 2009

D201: Advanced data analyses in conservation biology.

12th-13th August 2009

D202: Diversity & community analyses in conservation biology.

15th-16th September 2009

R101: Using R for analyses in conservation - an introduction.

19th-20th October 2009

R201: Advanced analyses in conservation using R.

R202: Community analyses using R.

28th-29th November 2009

COURSE FEES AND WHAT'S INCLUDED

Single Room Resident:	£205 incl tuition, full board and accommodation
Shared Room Resident:	£195 incl tuition, full board and accommodation
Non-resident:	£155 incl tuition, lunches and evening meals

Please note that this course starts the day after the previous course in the series ends. If you require to stay between courses – we can offer dinner bed and breakfast for the night of Tues 20th October for an additional £35 per person.

COURSE TIMES

Course members, both resident and non-resident, should plan to arrive in time for lunch at 1.00pm. There will be staff on reception to welcome you from 12:00am onwards.

It is sometimes possible for visitors on courses to stay over additional nights - please don't hesitate to ask if you would like this facility.

BOOKING PROCEDURE

To book a place on this course please complete the booking form and send it together with a deposit of £50 (cheque payable to Field Studies Council) to the address below. Payment of the balance of the course fee will be due 30 days before beginning of course. Cancellation after this date may leave the customer liable for the full amount - a condition which is accepted when the booking is confirmed. You are recommended to take out personal cancellation insurance to cover this eventuality.

Field Studies Council
Preston Montford Field Centre
Montford Bridge, Shrewsbury, SY4 1DX
Tel: 01743 852 040 Fax: 01743 851 066
Email: enquiries.pm@field-studies-council.org

ACCOMMODATION AT PRESTON MONTFORD

Our Darwin building has twin bedded rooms, each with en suite facilities; as a general rule, we will allocate these rooms (if available) to couples and people willing to share - thus giving more people the benefit of these facilities. People paying the single room fee will be guaranteed a room to themselves (with wash hand basin); toilets, showers and bathrooms are along an adjoining corridor.

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PRESTON MONTFORD



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Advanced analyses in conservation using R 21st - 22nd October 2009

Wednesday- Thursday

Arrive in time for 1:00pm lunch on Wednesday
Depart 4.00pm on Thursday

Course directed by:

Dr. Mark Gardener