

D201

Advanced data analysis in conservation biology

Wednesday 12th – Thursday 13th August 2009

Course directed by: **Dr Mark Gardener**

This course is designed to build on the knowledge gained from study of D101, which covered many fundamental analytical methods (e.g. t-test, U-test, correlation, Chi-squared).

In this course you will learn more advanced methods of analysing data. In basic statistics you are generally concerned with two things (e.g. two sites or the effect of one factor on another) but this is not often the case in conservation. We will begin with a brief overview of basic statistics and then examine methods to determine differences between multiple samples. Building on this we will step up to more complex situations (e.g. where you may have several interacting factors). We will then move to examine multiple regression, a method that allows you to determine how strongly a number of factors affect another variable (a common problem in conservation biology).

Main themes covered:

Review of basic statistical methods.

Differences between more than two samples:

Analysis of Variance (ANOVA).

Kruskal-Wallis (non-parametric ANOVA)

Post-hoc testing.

Multiple regression.

How best to present your results.

Don't Panic – a spreadsheet program to analyse your data will be provided with the course along with other bespoke spreadsheet packages.

This course is suitable for anyone who would like to present their biological data professionally. Benefits include:

- Scientific rigour and credibility
- A professional approach to data handling and presentation
- Gaining 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 or 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.

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.

21st-22nd October 2009

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 11th August 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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12th – 13th August 2009

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

Course directed by:
Dr. Mark Gardener