

# Data Analysis for Conservation Biologists I

Monday 2nd – Tuesday 3rd August 2010

Course directed by: **Dr Mark Gardener**

This course is designed to be an introduction to data handling and analysis. If you have limited knowledge of statistical analyses, or need a refresher, then this is a good starting point.

In this course you will learn the important analytical methods that underpin all data handling. We begin by examining ways to look at your data and how to manipulate and re-organise them so that you can gain an overview. Then we will learn methods of summarising data before moving on to the idea of hypothesis testing. We will then cover the statistical analyses that form the foundation for many other methods. These include; differences between samples, finding links between factors and association analysis. You will also learn how to produce graphs to illustrate your results in the most effective way.

## Main themes covered:

Introduction to handling data, what to look for and how to organise data (using Excel, e.g. pivot tables).

Summary stats, means, standard deviation, frequency distribution.

Hypothesis testing...

Differences between 2 samples: t-test, U-test, paired tests.

Correlation: Spearman Rank, Pearson.

Association: Chi-Squared.

Presenting results of statistical tests.

Producing graphs of your results.

*Don't Panic* – a spreadsheet program to analyse your data will be provided with the course

This course is suitable for anyone who would like to analyse and present their biological data professionally. 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 interactive 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 Analysis for Conservation Biologists I.

D201: Data Analysis for Conservation Biologists II.

4<sup>th</sup> - 5<sup>th</sup> August 2010

D202: Diversity & Community Analysis in Conservation.

1<sup>st</sup> - 2<sup>nd</sup> September 2010

R101: Advanced Data Analysis I

25<sup>th</sup> - 26<sup>th</sup> October 2010

R201: Advanced Data Analysis II

27<sup>th</sup> - 28<sup>th</sup> October 2010

R202: Advanced Community Analysis.

1<sup>st</sup> - 2<sup>nd</sup> December 2010



PRESTON MONTFORD



### **COURSE FEES AND WHAT'S INCLUDED**

Single Room Resident: £195 incl tuition, full board and accommodation  
Shared Room Resident: £185 incl tuition, full board and accommodation  
Non-resident: £150 incl tuition, lunches and evening meals

Please note that this course finishes the day before the next course in the series starts. If you require to stay between courses – we can offer dinner bed and breakfast for the night of Tuesday 3<sup>rd</sup> August for an additional £40+VAT 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 12:00pm 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](mailto: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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# **Data Analysis for Conservation Biologists I**

**2<sup>nd</sup> – 3<sup>rd</sup> August 2010**

**Monday - Tuesday**

Arrive in time for 1:00pm Lunch on Monday  
Depart 4.00pm on Tuesday

Course directed by:

**Dr. Mark Gardener**