Organised by
Klaipėda University Coastal Research and Planning Institute, Lithuania
Provided by Highland Statistics Ltd

Dates: Monday 20th to Friday 24th February 2012

Herewith we would like to invite you kindly to participate in **"Multivariate analysis in R – With Introduction to R"** statistics course, designed for biological and environmental scientists with limited statistical pre-knowledge. During the last 9 years Highland Statistics Ltd. has provided more than 125 courses at various places around the world. In this course we will discuss a large number of multivariate analysis techniques, and explain when, which one, and how to apply them in R.

Course content:

- **Day 1:** Introduction to R. Data exploration following Chapter 4 in Zuur et al. (2007). Outliers, collinearity, transformations, relationships, interactions. Exercises in R.
- **Day 2:** Measures of similarity (following Chapter 11 in Zuur et al. (2007). ANOSIM and the Mantel test to detect effects of covariates. MDS and NMDS. Exercises in R.
- **Days 3 & 4:** Principal component analysis and redundancy analysis (Chapter 12 in Zuur et al. 2007). Exercises in R.
- **Day 4 & 5**: Correspondence analysis and canonical correspondence analysis (Chapter 14 in Zuur et al (2007). Exercises in R.
- **Day 5:** Discriminant analysis (Chapter 15 in Zuur et al. 2007) and time allowing, clustering techniques. Exercises in R.

The format of the course will be theory followed by exercises in R.

Course times:
09.00 am -17.00 pm including 1 hour lunch break and a 20 minutes tea/coffee break both morning and afternoon.

Pre-required knowledge:

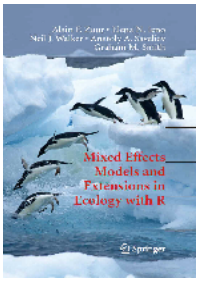
- Basic statistics
- The course will start with an introductory module on R, so no R knowledge is pre-required

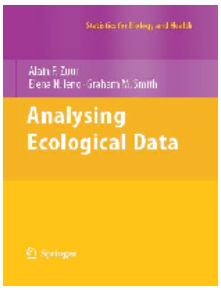
Course fee:

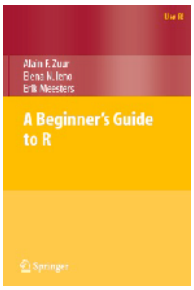
- 600 EUR
- Accommodation and lunch are not included as part of the course fee and participants are expected to make their own arrangements.

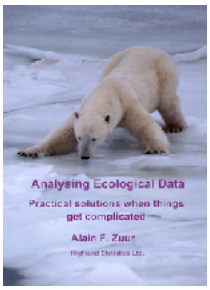
Course material:

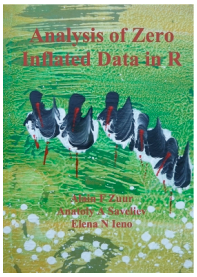
- Chapters 4, 10-15 of Zuur et al. (2007). *Analysing Ecological Data*. Springer. Pdfs of these chapters will be supplied.
- Various case study chapters in Zuur et al (2007) will be used as exercises.











Registration:

To register for a course please contact Jolita Petkuviene (jolita.petkuviene@corpi.ku.lt) and provide your contact details for the invoice. Registration deadline **15th of December 2011**

Note that this is an applied course aimed at biologists and ecologists. Approximately 50% of the time is used for exercises. For terms and conditions, see: www.highstat.com/statscourse.htm