
INTRODUCTION

Macroecologists and biogeographers currently recognize that nearly all biodiversity data show strong spatial autocorrelation, driven by spatially structured environmental variation and/or by dispersal mechanisms. At the same time, evolutionary history creates analogous autocorrelation structures in a phylogenetic context. Although spatial autocorrelation was introduced in biology in late 1970's, only more recently did ecologists really start to pay attention to this issue. Whereas spatially structured data present an interesting opportunity to investigate the ecological and evolutionary mechanisms underlying the spatial patterns, the spatial structure may also be a source of model misspecification. Despite the importance of this issue, there are still difficulties in dealing with spatial autocorrelation, mainly due to the lack of computational tools.

SCOPE OF THE COURSE

The purpose of the course is to introduce students to the basic concepts in the analysis of autocorrelated data, focusing on spatial and phylogenetic dimensions, and their application in macroecology, biogeography and comparative biology. The course will combine presentations with discussions of published studies, as well as practical classes using the SAM software (Spatial Analysis in Macroecology – see www.ecoevol.ufg.br/sam). Thus, there will be full space for formal and informal opportunities for mutual interactions between students and teachers, so that students will be the driving force behind the course and not simply spectators.

COURSE SET-UP

The course is five days. The first, second and third days will include plenary lectures given by the teachers, each followed by open discussion, and group-work consisting of discussion of seminal papers published in international peer-reviewed journals. Students will be given the opportunity to present their own research in two sessions of short talks. The fourth and fifth day will be devoted to a guided tour and practical work in SAM.

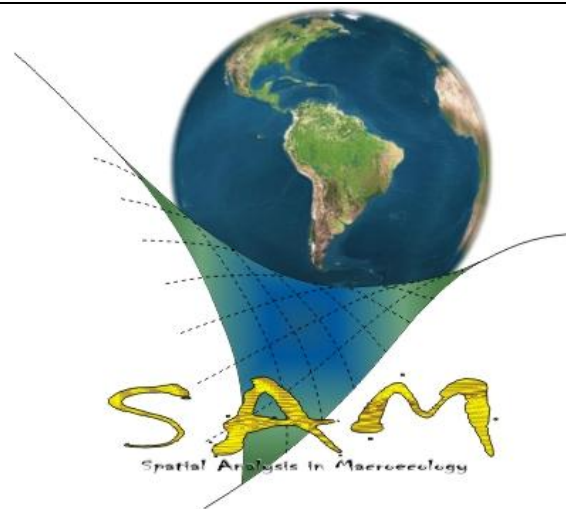
GUEST AND PRINCIPAL TEACHERS

❖ **Alexandre Diniz-Filho**

University of Goiás, Brazil

❖ **Thiago Rangel**

University of Connecticut, USA



REGISTRATION and FEES

Course space is limited to a maximum of 15 participants, so register early as space is prioritized following time of registration.

Fees: DKK 2600 (EUR 350)

Fees include coffee, tea, lunches, closing dinner and all course materials.

❖ You can register by sending an e-mail to Bettina Markussen: benmarkussen@bi.ku.dk

Deadline: 1st May 2007

For further information on registration and logistic please contact Bettina Markussen

ORGANISERS

For further information on the content of the course please contact one of the course organisers or go to:

www.macroecology.ku.dk/teaching

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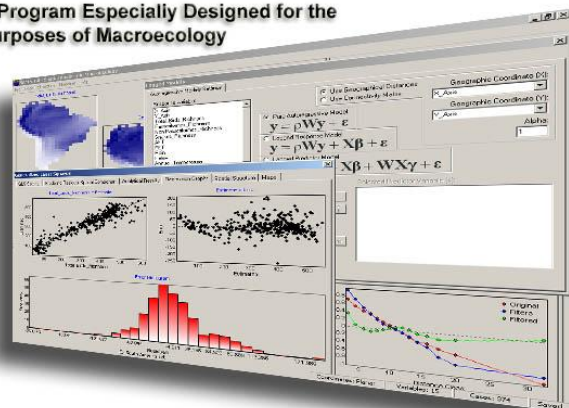
LOCATION

Biological Institute
Universitetsparken 15
DK-2100 Copenhagen Ø
Denmark, www.bi.ku.dk

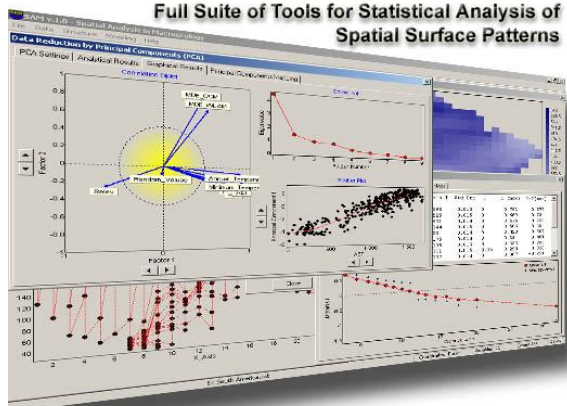
SOFTWARE

SAM software is a package of statistical tools for spatial analysis, mainly for applications in Macroecology and Biogeography. Free and downloadable at <http://www.ecoevol.ufg.br/sam/>

A Program Especially Designed for the Purposes of Macroecology



Full Suite of Tools for Statistical Analysis of Spatial Surface Patterns



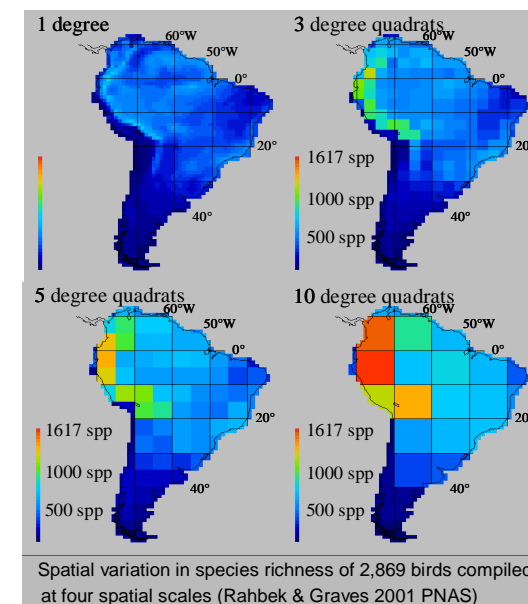
First announcement

PhD Course

Spatial Data Analysis in Macroecology

13-17 August 2007

Copenhagen, Denmark



Spatial variation in species richness of 2,869 birds compiled at four spatial scales (Rahbek & Graves 2001 PNAS)