



Island Biogeography

Teachers: Ana M. C. Santos (coordinator; MNCN - Madrid), Luis Borda de Água (CIBIO-Lisboa), Paulo A. V. Borges (Azorean Biodiversity Group, cE3c), Joaquín Hortal (MNCN - Madrid), Sofia Gabriel (CESAM).

Calendar: February 22-26, 2016

Duration: 36 hours

Schedule: 9h-13h and 14h-17h, monday-thursday; 9h-13h and 14h-18h friday

Objectives: This course introduces the field of island biogeography, a discipline that has long influenced other research areas such as macroecology, community ecology, evolution and conservation biology. This course covers the main aspects of island biogeography, and on completion of the course the students shall have acquired knowledge and understanding on:

- 1) Ecological/evolutionary theories developed from studies on islands, and its applications in other research areas.
- 2) Processes that occur during and after island colonization, that shape island communities.
- 3) Island evolutionary processes.
- 4) Applications of island biogeography to conservation biology

General plan:

1. Introduction to island biogeography – historical context, types of islands, characteristics of island biodiversity (Ana MC Santos; Day 1 - 3 hours).
2. Ecological processes I – equilibrium theory of island biogeography, species-area relationship (Ana MC Santos; Day 1 - 4 hours).
3. Ecological processes II – metapopulation ecology, theoretical models in island biogeography (Joaquin Hortal; Day 2 - 4 hours).
4. Ecological processes III – Neutral Theory of Biodiversity (Luis Borda de Água; Day 2 - 3 hours).
5. Island Communities – colonization, assemblage characteristics, assembly processes,

succession (Ana MC Santos; Day 3 – 7 hours).

6. Evolution on islands – speciation, evolutionary models, adaptive radiation, phylogeography (Ana MC Santos & Sofia Gabriel; Day 4 – 7 hours).

7. Island biogeography and Conservation biology – theory of island biogeography and conservation, reserve design, human impacts (Ana M C Santos & Paulo AV Borges; Day 5 – 4 hours).

8. Mini-symposium and final discussion – Students will present a short project (up to 5 minutes) applying what they have learned during the course. It can be fictitious or based on their own research projects (Ana MC Santos & Paulo AV Borges; Day 5 – 4 hours).

This course can have a recognition of 6 ECTs for FCUL PhD students enrolling in it as part of their first doctoral year. For FCUL PhD students only requiring 5 ECTs recognized in their specific PhD programmes the last 6 hours of the course are not mandatory and the certificate will be on 'Topics in Island Biogeography'.

Location: Departamento de Biologia Animal (FCUL)

Nº (min, max) students: 5-20

Minimal formation of students: “Licenciatura” (bachelor) in Biology, Geography or related areas.

Directed to: PhD or MSc students in Evolution, Ecology, Geography or related areas, and postdocs and other professionals working in related topics

Fee: free for 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (UL; UP) and Biology and Ecology of Global Changes (UL, UA); 20 € for PhD students from institutions of the PEERS network (cE3c, CFE); 100 € for FCUL Master students and unemployed; 150 € for BTI, BI and other PhD students; 200 € for Professionals and postdocs.

Deadline for applications: January 25th, 2016

Candidates should send a short CV and motivation letter explaining why they are interested in the course, also including a brief description of their research projects (if applicable). Send all information and requests to Ana M. C. Santos (ana.margarida.c.santos@googlemail.com).