Island Biogeography

Teachers: Ana M. C. Santos (coordinator; Universidad Autónoma de Madrid), Luis Borda de Água (CIBIO-Lisboa), Joaquín Hortal (MNCN - Madrid), Sofia Gabriel (CESAM).

This course will only take place if possible in presential format

Calendar: April 4th – 8th 2022
Duration: 32.5 hours
Schedule: 9h-13h and 14h-17h, Monday-Wednesday; 9h-13h and 14h-17h30 Thursday; 9h-13h 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).
2. Ecological processes I – equilibrium theory of island biogeography, species-area relationship (Ana MC Santos; Day 1).
3. Ecological processes I – species-area relationship and the General Dynamic Model - Practical exercises (in R) (Ana MC Santos; Day 2).
3. Ecological processes II – Theoretical models in island biogeography (Joaquin Hortal; Day 2).
4. Island Communities – colonization, assemblage characteristics, assembly processes, succession (Ana MC Santos; Day 3).
5. Ecological processes III – Neutral Theory of Biodiversity (Luis Borda de Água; Day 3).

6. Evolution on islands – speciation, evolutionary models, adaptive radiation, phylogeography (Sofia Gabriel & Ana MC Santos; Day 4).
7. Island biogeography and Conservation biology – theory of island biogeography and conservation, reserve design, human impacts (Ana M C Santos; Day 4).
8. Discussion of case studies (Ana M C Santos; Day 5– 4 hours).

This course can have a recognition of 5 ECTs for FCUL PhD students enrolling in it as part of their first doctoral year. The delivery of a report is mandatory after the course. For students requiring a recognition of 6 ECTs, 3.5 more hours of tutorial time will be included (amounting to a total of 36 hours of contact with the teachers), and the students will need to deliver an additional report (two reports total). Such report(s) are also advised for other students requesting creditation of the course in their institutions.

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

Free for 1st year PhD students in Doctoral programmes at FCUL (e.g. Biologia), Biodiversity, Genetics and Evolution (BIODIV UL; UP), Biology and Ecology of Global Changes (BEAG UL, UA) and Sustainability Science (UL, several institutions), when the course counts credits for their formation, in which case the delivery of a final report done after the course is mandatory; the course is also free for more advanced PhD students of the BIODIV programme (ULisboa or UPorto); 40 € for more advanced PhD students of cE3c; 65 € for PhD students of the PEERS network (CFE); 100 € for FCUL Master students and unemployed; 150 € for BTI, BI and other PhD students; 200 € for Professional and postdocs.

When the maximum number of students is reached, 10 vacancies will be available for non-paying 1st year PhD students mentioned above, being, by order of preference students from: 1) cE3c; 2) BIODIV (not from cE3c); 3) FCUL (not from cE3c); 4) Sustainability Science (not from cE3c or FCUL); 5) BEAG (not from cE3c or FCUL).

Deadline for applications: March 4th 2022

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@gmail.com). The cv and letter should be named as *1st-lastNAME-CV.pdf and 1st-lastNAME-ML.pdf* (that is personalize the name of each file with your first and last name).

In the email please add the following information:

Full Name:

E-mail:

Phone:

Professional activity: Professional/Postdoc, BTI, BI (or other non-post-doc research grant), PhD student (with/ without scholarship), Lic. (Bachelor)/Master student

PhD student of the 1st year of a Doctoral programme at FCUL, BIODIV (FCUL/FCUP), or BEAG (FCUL or UA)?

If yes to the above question, PhD student doing the Course to count credits for 1st year?:

PhD student of cE3c or CEF (Centro de Ecologia Funcional)?:

Name of the PhD programme: