



Entomology: Insect diversity and decline

Coordinators: Ana Sofia Reboleira (cE3c-FCUL) and Roberto Keller (cE3c-MNHNC)

Lecturers: Patrícia Beldade (CE3C-FCUL), Paulo Borges (CE3C-Univ. Açores), Paula Simões (CE3C-FCUL), Teresa Rebelo (CE3C-FCUL), Mário Boieiro (CE3C-Univ. Açores)

Calendar: 7th -11th April 2025

Duration: 36 hours (contact hours)

Schedule: 9:00-17:30 (includes: Fieldwork, Lab work, Museum Collections work and Lectures)

Objectives

This course provides a general understanding of insect diversity and the many factors responsible for their decline. It will capacitate students to recognize insect taxonomic groups, understand major transitions in insect evolution, and identify the principal threats to the entomofauna. The course includes hands-on experience on collecting methods in the field and of preparation methods to work with scientific collections as a basis for research. The course relies on several case studies of insect adaptation, and the most recent overview on insect evo-devo, plasticity, ecophysiological responses and conservation under global change.

PROGRAM

Monday

09:00-09:30 Welcome session and program presentation

09:30-12:30 Introduction to Entomology

12:30-13:30 Lunch

13:30-17:30 Insect evolution, diversity, and ecology.

Tuesday

09:00-12:30 Insect collecting methods, preparation, and identification: terrestrial compartment

Fieldwork

12:30-13:30 Lunch

13:30-17:30 Insect collecting methods, preparation, and identification: subterranean compartment

Fieldwork

Wednesday

09:00-12:30 Insect collecting methods, preparation, and identification: aquatic compartment

Fieldwork

12:30-13:30 Lunch

13:30-17:30 Insect Diversity: major taxonomic groups, distinctive characters, and identification

Thursday

09:00-12.30 Lectures on insect diversity and decline

12:30-13:30 Lunch

13:30-17:30 Preparation of presentation of personal project

Friday

09:00-12.30 Lectures on insect diversity and decline

12:30-13:30 Lunch

13:30-17:00 Personal project: results and discussion

17:00-17:30 Closure

Participants need to attend 85% of the course hours (this means that they can miss one half-day), and actively participate in all activities.

This course can give credits to PhD programs at FCUL or of programs with partnership from FCUL and other institutions with 6h-7h of contact hours per ECT, as a function of specific requirements. For these students additionally to the exercises done during the week the delivery of a written report done after the course is mandatory. For programs with less hours of contact per ECT (6h/ECT, getting 6 ECTs from the course) students need to do an additional assignment (summary report). If needed 1 or 2 additional hours of contact may be added. Such report(s) are also advised for other students requesting accreditation of the course in their institutions.

Nº (min, max) students: 10-20

Minimal formation of students: Bachelor in Biological and Natural Sciences or related areas.

Directed to: MSc or PhD students in Biology, Environmental Sciences, Ecology or related areas, postdocs and professionals working in related topics.

FEE

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); 50 € for more advanced PhD students of cE3c of other programmes; 80 € for PhD students of the PEERS network (CFE); 125 € for FCUL Master students and unemployed; 180 € for BTI, BI and other PhD students; 250 € 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: 7th March 2025

How to apply

Candidates should fill in a FORM that will be available when the call is open.

This formulary is strictly confidential, as explained in the introduction, and the data are required because the cE3c Advanced Courses are also offered as part of the PRR program of FCUL.

When filling the formulary mind to:

- 1) FILL ALL THE MANDATORY FIELDS
- 2) UPLOAD CV AND MOTIVATION LETTER, both mandatory; use the names as instructed there
- 3) If you want to resume later SAVE the formulary, otherwise you will need to fill everything again
- 4) At the end SUBMIT the formulary before exiting

For any doubts, please contact the cE3c coordinator of the cE3c courses Margarida Matos (mmmatos@fc.ul.pt) and Ana Sofia Reboleira (asreboleira@ciencias.ulisboa.pt)