

## cE3c Advanced Courses 2019/2020



# Applied Methods in Community Ecology and Functional Ecology

Taught by: Paulo Borges & François Rigal | June 15-19, 2020 @ FCUL

### General Plan

- 1) Partitioning diversity into independent alpha, beta and gamma components - basic concepts and software (Species Diversity, Richness IV and R).
- 2) Partitioning beta diversity - multiplicative vs. additive measures of beta diversity and replacement vs richness differences components. Applications in PARTITION and R.
- 3) Estimating diversity from incomplete sampling - algorithms and applications with EstimateS and R.
- 4) Conceptual bases of community assembly theory.
- 5) Conceptual bases of functional and phylogenetic approaches in community ecology.
- 6) Computing functional and phylogenetic diversity (overview of the different indices and different R packages available and introduction to null models)
- 7) Rarity and Species Abundance Distribution Models (SADs) with new applications in R.
- 8) Student's case studies.

### Deadline for applications: April 24, 2020

The course is free for a maximum of 10 1st year PhD students in the Doctoral programme in Biology (FCUL), Biodiversity, Genetics and Evolution (BIODIV UL, UP) and Biology and Ecology of Global Changes (BEAG UL, UA). For information of fees for other participants see the programme details.

See the PROGRAMME, how to apply and fees at:

<http://ce3c.ciencias.ulisboa.pt/training/ver.php?id=111>

