



# SUMMER SCHOOL IN ISLAND BIOGEOGRAPHY AND MACROECOLOGY 2022 EDITION

#### Calendar:

July 18th to 29th 2022

**Duration: 70 hours** 

Nº max students: 30 students (5 places reserved for 1st year cE3c PhD students; 6 places reserved for USA students, The Summer School will run with a minimum of 21 students)

Venue: Angra do Heroísmo, Terceira Island, in the Azores archipelago, PORTUGAL

**Target audience:** Ph.D. students in Ecology, Geography, Environmental Sciences or related areas, and Postdocs working in Island Biogeography and Macroecology

Format: In-person instruction, student projects discussions and final evaluation

Teaching language: English

# Application deadline:

April 15th, 2022.

See "Other Important Information" at the end for detailed information on How to Apply.

# Fees standard registration:

- PhD students with a FLAD grant: 50€

- Other PhD/MSc students: 100€

Senior researchers (Post-Docs)/academic: 300€

**Certificate of Completion:** At the end of the program, participants receive a Certificate of Completion.

Within approximately 1 month after completion of the program, participants will receive, by post, an official Transcript of Records along with Syllabus Authentication, issued by the Registrar's Office of the University of the Azores.

**Credit Conversion:** Students from universities with a North-American credits system should consult their school's credit-granting process. 6 ECTS credits are usually equivalent to 3 North-American credits.

# Course description:

The 'Summer School in Island Biogeography and Macroecology', is a comprehensive course offering an overview of different island biogeography and macroecological topics focused on terrestrial ecosystems. It offers not only a strong theoretical background, presented by some of the most prestigious scientists in the field, but also innovative methodologies, regarding field sampling and analytical tools. During the two-week course the students will follow all the steps of a scientific project, from developing research questions objectives and hypotheses, to the selection of methods, including the collection, analysis and discussion of data/results. There will also be ample opportunity to discuss student's own data and case studies.

The course is focused on the large-scale patterns of taxonomic, phylogenetic and functional diversity.

# Specific theoretical topics will be:

- (1) Ecological/evolutionary theories developed from studies on islands, and their applications in other research areas;
- (2) Processes that occur during and after island colonization, that shape island communities;
- (3) Island community-assembly rules;
- (4) Island evolutionary processes;
- (5) Applications of island biogeography to conservation biology;
- (6) Islands within islands caves/lava tubes; kipukas
- (7) Island paleobiogeography.

#### Specific applied practical topics will be:

- (1) Quantification of alpha, beta and gamma diversity;
- (2) Quantification of rarity and species abundance distribution;
- (3) Estimating diversity from incomplete sampling;
- (4) Standardize sampling protocols for island fauna and flora surveys and monitoring;
- (5) Biological traits in ecology and conservation
- (6) Network ecology modelling;
- (7) Population genetics/genomics
- (8) Phylogenetic analysis and phylogeography
- (9) Phylogenetic and functional diversity (richness, dispersion, evenness)
- (10) Partitioning taxonomic, phylogenetic and functional beta diversity;

#### Lecturers:

#### Organizing committee

(all from the University of Azores, Azorean Biodiversity Group, cE3c)

- Paulo A. V. Borges
- Rosalina Gabriel
- Rui Bento Elias,
- Isabel R. Amorim,
- Mário Boieiro,
- Gabor Pozsgai,
- Noelline Tsafack

#### **Invited Scientists:**

#### Week 1

- François Rigal (University of Pau, France)
- José Maria Fernández-Palacios (University of La Laguna, Canary Islands, Spain)
- Holger Kreft (University of Göttingen, Germany)
- Robert J. Whittaker (University of Oxford, England, U.K.)
- Simone Fattorini (University of Aquila, Italy)

#### Week 2

- Ana Santos (Universidade Universidad Autónoma de Madrid, Spain)
- Brent Emerson (Island Ecology and Evolution Res. Group-IPNA-CSIC, Canary Islands, Spain)
- Joaquin Hortal (Natural History Museum in Madrid (MNCN), Spain)
- Luís Borda-de-Água (CIBIO -Porto, Portugal)
- Pedro Cardoso (Natural History Museum, University of Helsinki, Finland)
- Rosemary Gillespie (University of California, Berkeley, USA)

# **Detailed program**

Calendar: July 18th to 29th 2022 Duration: 70 hours (8 ECTS)

Schedule: 9h-12h30 and 14h00-17h30 Monday to Friday

	Monday, 18	Tuesday, 19	Wednesday, 20	Thursday, 21	Friday, 22
9h-12h30	Opening session Theoretical Class 1	Practical's	Practical's	Practical's	Field trip
12h30-14h00	Lunch	Lunch	Lunch	Lunch	Field trip
14h00-16h00	Theoretical Class 2	Theoretical Class 4	Theoretical Class 6	Theoretical Class 8	Field trip
16h00-17h30	Theoretical Class 3	Theoretical Class 5	Theoretical Class 7	Theoretical Class 9	Field trip
	Welcome reception				

	Monday, 25	Tuesday, 26	Wednesday, 27	Thursday, 28	Friday, 29
9h-12h30	Practical's	Practical's	Practical's	Practical's	Project presentation 5
12h30-14h00	Lunch	Lunch	Lunch	Lunch	Lunch
14h00-16h00	Theoretical Class 10	Theoretical Class 11	Theoretical Class 12	Theoretical Class 13	Project presentation 7
16h00-17h30	Project presentation 1	Project presentation 2	Project presentation 3	Project presentation 4	Course evaluation
					Course dinner

#### Fees:

The fee includes: lectures and lecture notes, field excursions, coffee breaks and a welcome reception to faculty and students.

# **Financial Support**:

Portuguese and American students are eligible for financial support from FLAD (Fundação Luso-Americana para o Desenvolvimento / Luso-American Development Foundation).

The Grants include:

- a) **Portuguese Students** include flight expenses (Economy Class from Lisboa or Porto to Terceira Island) and 14 nights at a 3-star hotel (or equivalent) in a double room in Angra do Heroísmo (Terceira Island).
- b) There will be some additional FLAD scholarships available for USA students, which include flight expenses (Economy Class from Boston to Terceira Island) and 14 nights at a 3-star hotel (or equivalent) in a double room in Angra do Heroísmo (Terceira Island).

Please note: Coffee-breaks are also included; however, lunch and dinner are at your own expense.

#### **Requirements:**

Research interests in insular ecosystems; Basic knowledge of R.

# How to apply

#### Deadline and other important dates:

Application' deadline: April 15th, 2022

Successful applicants will be notified by e-mail by April 30th, 2022 and will have to confirm their intention to participate by paying the registration fee by May 15th, 2022. After this date, new applications will only be considered in case the 30 vacancies are not yet fulfilled.

After registration fee payment the participants will be provided with lecture-related material and pre-course readings.

# **Application instruction:**

Candidates should send the required information through the link: <a href="https://forms.gle/A268iXbwxxzFeoTH9">https://forms.gle/A268iXbwxxzFeoTH9</a>

Any queries should be sent to the E-mail of Paulo A. V. Borges (summercourse.biogeo.az@gmail.com)

- general identification data (full name, nationality, age, country of residence, main contacts);
- a short CV, including expertise in R (advanced, medium, beginner);
- a brief description of one of your research projects (up to one page); and
- a motivation letter explaining why you are interested in this course and if you are applying to FLAD scholarship.

# Other Important information

# Travelling to Terceira Island, Azores, Portugal

- -Travelling from Lisbon, Portugal to Lajes International Airport (TER) flights operated by SATA Air Açores, TAP Air Portugal and Ryanair.
- -Travelling from the USA and Canada direct flights to Lajes International Airport (TER) operated by SATA Air Açores.

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# Governo dos Açores

# FLAD - Fundação Luso-Americana para o Desenvolvimento



#### Grupo da Biodiversidade dos Açores / Azorean Biodiversity Group

cE3c - Centre for Ecology, Evolution and Environmental Changes (Centro de Ecologia, Evolução e Alterações Ambientais)



