

Climate Change and Bats: from Science to Conservation

<https://climbats.eu/>

Training school on: “A primer on Species Distribution Modeling in ecology and conservation”

The COST Action Climate Change and Bats is organizing the first Training School on “A primer on Species Distribution Modeling in ecology and conservation”, which will take place on the **14th and 15th of October as an online event**. The aim of the training school is to give an introduction to species distribution modelling (SDM). It is mostly relevant for people with little or no experience in SDMs, and it is meant to be a starting point for in-depth learning. To be able to follow the practicals you will need to have basic knowledge of the R environment.

The training school will consist of a first introductory lecture, followed by the presentation of case studies, a practical with several lectures, and invited seminars on hot research topics in species distribution models.

We invite students and early-career researchers (from MSc to post-docs) to express their interest to join the training school. Participation will be free of charge and limited to 30 participants in order to allow discussions and be able to run informative online practicals. Preference will be given to PhD students and applicants from ITC countries (<https://www.cost.eu/uploads/2021/03/ITC.pdf>).

To express your interest in participating in the training school, please submit a short motivation letter (~ 300 words) to Francisco Amorim ([fnlamorim\[at\]gmail.com](mailto:fnlamorim@gmail.com)) by the **5th of October**.

Lecturers:

Luca Santini (Sapienza University, Italy)

Orly Razgour (University of Exeter, UK)

Hugo Rebelo (CIBIO, Portugal)

Ana Benítez-López (CSIC, Spain)

Francisco Amorim (CIBIO, Portugal)

Invited speakers:

Eduardo Arlé (iDiv, Germany)

Yoan Fourcade (Université Paris Est Créteil, France)

Damaris Zurell (University of Postdam, Germany)

Melinda de Jonge (Radboud University, The Netherlands)

Daily Schedule (CET time)

Thursday 14th

9:00 – Welcome, housekeeping and introductions

9:20 – Introductory lecture on species distribution theory and modelling (Part 1) [Luca Santini]

9:55 - 5 min comfort break

10:00 – Introductory lecture on species distribution theory and modelling (Part 2) [Luca Santini]

10:50 - Q&A session

11:00 - breakout room discussions

11:15 - 15 min comfort break

Case study seminars (20 min + 10 min QA):

11:30 – “Using a multi-scale approach to model sandgrouse habitat suitability in Spain” [Ana Benítez-López]

12:00 – “Using SDMs to detect species geographic avoidance” [Roberto Novella]

12:30 – “Combining SDMs and Spatial Conservation Prioritization tools to design optimized monitoring” [Francisco Amorim]

13:00 - Lunch break

14:00 – Practical - running SDMs in R

16:00 – Q&A session

Friday 15th – Invited seminars (30 min + 10 min QA):

9:00 – “Biases and uncertainties in occurrence data, and how to address them.” [Eduardo Arlé]

9:40 – “Learning from co-occurrence: an introduction to Joint SDM” [Melinda de Jonge]

10:20 - 10 mins comfort break

10:30 – “The use of virtual species approaches in SDM research” [Damaris Zurell]

11:10 – “Incorporating genetic/genomic data into SDMs” [Orly Razgour]

11:50 - 10 mins comfort break

12:00 – “Overfitting and misparametrization issues in SDMs, and how to detect them. Spoiler: you can't!” [Yoan Fourcade]

13:00 - Lunch break

14:00 - Breakout room discussions

14:20 - Feedback from breakout room discussions and summary of the training school

14:30 - End of training school