

Training School

MODELS IN INVASION ECOLOGY: CHALLENGES AND APPLICATIONS

2-4 March 2015 - Porto, Portugal

Sponsored by:

COST Action TD1209 - ALIEN Challenge
& Biodiv Doctoral Programme - CIBIO/InBIO

Target participants

The intended audience for this course is students or researchers at early stage of their career. They are expected to have limited confidence with programming and statistics, and being interested in getting a broader view of modelling tools. This course is also potentially interesting for those with a stronger background in modelling who want to get acquainted with modelling in R. No previous knowledge about R is required.

Location

CIBIO/INBIO - Centro de Investigação em Biodiversidade e Recursos Genéticos - Campus Agrário de Vairão, Universidade do Porto, 4485-601 Vairão, Portugal

Programme

2nd March - "Invasive Opening"

8:30-9:30 | Registration
9:45-10:00 | Welcome message (CIBIO board)
10:00-11:00 | OPEN LECTURE - Alien invasive species: patterns, processes, and impacts (João Honrado)

11:00-11:30 | Coffee-Break

11:30-12:30 | LECTURE - Theory, concepts, assumptions and principles of environmental models (Joana Vicente)

12:30-14:00 | Lunch

14:00-15:30 | LECTURE - Enhancement of earth observations integration for alien species assessment and modeling (António Monteiro)

15:30-16:30 | PRACTICALS (Part I) Estimation and integration of satellite-based gross primary production (GPP) in alien distribution models (António Monteiro & Bruno Marcos)

16:30-17:00 | Coffee-Break

17:00-18:00 | PRACTICALS (Part II) Estimation and integration of satellite-based gross primary production (GPP) in alien distribution models (António Monteiro & Bruno Marcos)

18:00-19:00 | 1MIN-SELFIE of participants about their work and interests in relation with the course attendance

19:00 | Welcome "Porto de Honra" and "Aperitivo"



COST is supported by the EU
RTD Framework Programme



ESF provides the COST Office
through an EC contract

3rd March - "Inside The Models - Vol. I"

9:00-9:45 | LECTURE - Species Distribution Models (Olivier Broennimann)

9:45-10:30 | LECTURE - Individual- and Agent Based Models (Uta Berger)

10:30-11:00h | Coffee-Break

11:00-11:45 | LECTURE - Bayesian Models (Håvard Rue)

11:45-12:30 | LECTURE - Stochastic Species Distribution Models (João Cabral/Mário Santos)

12:30 - 14:00 | Lunch

14:00 - 16:00 | PRACTICALS - Temporal analysis of climatic niche change in the native and invaded ranges of an exotic plant using SDMs (Olivier Broennimann)

16:00 - 16:30 | Coffee Break

16:30-18:30 | PRACTICALS - IBMs / ABMs - Identification of dispersal paths of invasive species and assessing the effect of intervention methods

18:30 - 19:00 | 5 min poster presentation by students

19:30 | Dinner at Vila do Conde

4th March "Inside The Models - Vol. II"

9:00-11:00 | PRACTICALS - Bayesian models

11:00-11:30h | Coffee-Break

11:30-12:15 | LECTURE - Species distribution models in aquatic environments (Belinda Galardo)

12:15 - 14:00 | Lunch

14:00-16:00 | PRACTICALS - Modelling aquatic environments: integration of marine and freshwater information into SDMs

16:00 - 16:30 | Coffee Break

16:30-18:00 | PRACTICALS - analyses of own data

18:00-19:00 | 1min presentation by students about their findings and performed work

Specific requirements

Participants should preferably use their own laptops for the course. Students are required to install R, MAXENT, and NETLOGO in their laptops prior to the course. Instructions to perform this task will be sent by email one week prior to the start of the course.

COST Action ALIEN Challenge will facilitate enhanced knowledge gathering and sharing through a network of experts, providing support to a European IAS information system which will enable effective and informed decision-making in relation to IAS.

Training Schools are aimed at providing dissemination of the COST Action activities and intensive training in a new emerging subject in one of the laboratories of the COST Action with unique equipment or know-how. Participants are typically but not exclusively young researchers from across Europe.

16 grants of up to €720 (to cover meals, accommodation and travel) are available.

Expressions of interest should be submitted to: TD1209AlienChallenge@nerc.ac.uk

Deadline for sending expressions of interest (cover letter and CV): 20th December 2014

Selection of participants: 19th January 2015

For additional information, please contact: TD1209AlienChallenge@nerc.ac.uk

ALIEN



Challenge