

Practical information for the course:

Species traits: a functional approach to biodiversity, from organisms to ecosystems (6th edition)

**May 30th – June 3rd, 2016 University of South Bohemia,
Ceske Budejovice, Czech Republic**

Course structure

The course is targeted mostly to Master and PhD students (although in other years we also had some post-docs and Professors). The course will last 5 days; much of the time is in the form of lectures given by the professors, covering different aspects of functional ecology, from organisms to ecosystems (lecturers' biography available at the end of this document). Lectures will cover general aspects of functional ecology, including definitions, measurements and different applications of functional traits. They will include (a) presentation of concepts and theory related to functional plant traits (b) analysis of traits at organismal, community and ecosystem levels (including relationship to ecosystem function and ecological services) (c) examples of use for land use change, climate change, multi-trophic interactions (d) Measures of traits in the field in teams, analysis and presentation of data (e) Presentation of available data banks and their correct use.

Although most of the examples and work will be focused on plant traits, the course is not necessarily targeted only for plant ecologists. The detailed program will be available in March on the web page of the course (<http://tinyurl.com/gm6drzf>). Recommended readings are included on the page, to prepare before the course.

During the course, students will also have the opportunity to put in practice what they learn. The course includes, in fact, measurement of traits in the field in teams (supervised by professors), followed by analyses, interpretation and presentation of collected data by students groups at the end of the week. Registered students, when interested, can also briefly present their research topic to the group for discussion (specific instructions will follow).

Location

The course will take place between May 30th– June 3rd, 2016, at the University of South Bohemia, Ceske Budejovice in Czech Republic. The town (<http://tinyurl.com/jkq8t5a>; around 100.000 people) is famous for being the place where the original Budweiser beer was created (the American one being just a bad copy!)**. This historical town (750 years old) is surrounded by natural landscapes including species rich meadows that, in the time of the course, will host a high number of flowering plants (and practical measurements will take place in some of these meadows around Ceske Budejovice). Nice national parks (<http://www.npsumava.cz/en/>) and UNESCO protected towns (Český Krumlov and Holašovice) are in close vicinity to the town and deserve a visit, maybe a good complement to the course. Ceske Budejovice can be reached by bus or train from the capital, Prague (which also surely deserves a visit), within a ~2h ride.

The course will take place within the facilities of the University of South Bohemia. At the same time, after the field sampling experience, students and professors will likely spend one night in the vicinity of Ceske Budejovice, where the Institute of Botany of the Czech Academy of Science has a field station **[please bring a sleeping bag!]**. ** During this night, free beer provided by the Budweiser Budvar factory will be likely available.

Accommodation

Students and professors will be accommodated in two Hotels very close to the main square of the city center (which is said to be the biggest squared square in Czech Republic). The University can be reached by a nice walk through the bigger park of the town or by frequent buses (3 stops). Accommodation expenses are included in the fees of the course, together with the breakfast (at the hotel) and lunches (at the University). Common dinners will be organized but will be paid individually by the students.

Fees

The course fee is **7500 Kč**, Czech Crowns (which is roughly 280 euros, 300 US dollars, 440 Canadian dollars etc..). The fee includes **all lectures, field sampling, accommodations for up to 6 nights (from Sunday 29th May to Saturday 4th June), all breakfasts, coffee breaks and lunches** during the course. **PLEASE DO NOT PAY BEFORE YOUR APPLICATION WILL BE SUCCESSFUL! see below.**

The fee can be paid to:

Jihoceska Univerzita v Českých Budějovicích

Address: Branišovská 1645/31A, 37002, České Budějovice 2

IBAN: CZ20 0300 0000 0001 0472 5778

BIC/SWIFT: CEKOCZPP

Payment reference: "91-0054 International course: Species traits"

Registration procedure

Interested students can first send an application, by writing an email, with CV and motivation letter, to Francesco de Bello, who is organizing the course (fradebello@ctfc.es). Unfortunately we cannot guarantee that all applicants will be accepted, since in some years, we had more applications than places available. Selection will be based on the motivation letter and the CV. In the case that the application will be accepted, then the official registration can be completed by paying the course fee (**again: please do not pay the fee before having received a confirmation of acceptance of your application!**). The fee can be returned up to one month previous to the beginning of the course, but not later.

**APPLICATIONS SHOULD BE SENT BY THE END
OF FEBRUARY !!!**

Jamming sessions and music instruments

Students with any kind of music skills are welcomed to join regular jam sessions at one of the pub populated by local students. Some guitars and percussions will be available on-site, but if you have any transportable instrument (flute, mandolin, etc...) please bring it with you. There will be more than one occasion to relax, and jam together, after many intensive lectures.

Biographies of professors and contributors (those confirmed so far)

Éric Garnier is a researcher in plant ecology. His work on plant functional diversity is based on a combination of conceptual, experimental and methodological approaches, and contributes to the broad field of trait-based comparative ecology. He has taken part in

the development of large data bases of plant traits and more recently in the emergence of ecoinformatics, especially through his work as the Director of CESAB (from 2010-14). He has pioneered some of the developments of conceptual models of relationships between plant functional traits, plant function, and biogeochemistry, and has participated in the development of standardized approaches to the measurement of plant traits towards a worldwide application.
<http://www.cefe.cnrs.fr/fr/recherche/ef/ecopar/833-c/146-eric-garnier>

Bill Shipley is a full professor in the Département de biologie, Université de Sherbrooke and member of the Centre de sciences de la biodiversité du Québec (CSBQ) and member of the Centre d'étude de la forêt (CEF). His research explores theoretical and empirical aspects of functional ecology of plants and community assembly. He is the author of two books, including « From plant traits to vegetation structure : Chance and selection in the assembly of ecological communities », published at Cambridge University Press.
<http://www.billshipley.recherche.usherbrooke.ca/>

Alison Munson initiated the course with collaborators in 2009, and has hosted it three years in Quebec. She is a full professor in biogeochemistry of forest ecosystems at Université Laval, and member of CEF and CSBQ. She studies ecosystem function in response to natural (fire) and anthropogenic disturbances, with an emphasis on carbon and nitrogen cycles, and carbon stabilization in soils. She explores the feedback of plant functional traits, mainly root traits, to ecosystem function in forest and agroforest ecosystems.

<http://www.cef-cfr.ca/index.php?n=Membres.AlisonMunson>

Juan Posada is a professor and the director of the biology program at the University of El Rosario in Bogota, Colombia. His areas of general interest are in plant eco-physiology, ecosystem ecology and functional ecology. He is studying the principles that drive the response of leaf traits to the light regime in forest canopies. He takes both theoretical and empirical approaches to test if individual leaves optimize the use of light and is constructing a framework to scale photosynthesis from leaves to ecosystems. He also studies ecosystem carbon cycling in tropical forests and its relationship with functional diversity.
<http://www.urosario.edu.co/biologia/profesores/profesores/Juan-M-Posada/>

Francesco de Bello is trained as a plant ecologist and agronomist. Using meadows and alpine vegetation as a study framework, I assess the role of functional trait diversity on the interface between community assembly and ecosystem service delivery. My interests also include the effects of land-use changes on vegetation, and particularly grazing and mowing, and the development of integrated

biodiversity indicator systems to monitor the effects of these changes in interaction with climate change.
http://www.butbn.cas.cz/francesco/Webpage/Home_.html

Jitka Klimešová is head of the Institute of Botany in Třeboň, where her main interest is on plant functional morphology particularly on clonal and bud-bank traits. She is author of the Central European wide database on clonal traits, Clopla (<http://clopla.butbn.cas.cz/>). She is interested in problematic of trait standardization which is particularly difficult in morphological traits. The question motivating her work recently is: How clonal and bud bank traits are related to recurrent disturbance?
<http://www.butbn.cas.cz/en/ecology/staff/jitka-klimesova>

Jan (Šuspa) Lepš is Professor Department of Botany, University of South Bohemia, author of a book on multivariate Analysis with Canoco (<http://tinyurl.com/hkbljwd>) and of several papers on methods and applications using plant functional traits. He is trained as plant ecologist and works particularly on the mechanisms of species coexistence in seminatural meadow communities although he conducts also research in the rainforest of Papua New Guinea. At present he has two joint appointments, the major one at the Department of Botany, Faculty of Science, where he teaches both graduate and undergraduate courses, and minor one in Department of Ecology and Nature Conservation, Institute of Entomology, Czech Academy of Sciences.
<http://botanika.prf.jcu.cz/suspa/>