

CURRICULUM VITAE

Personal information -----

Dr. Isabelle BOULANGEAT

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Date of birth: 16/08/1985

Nationality: French



Diploma -----

2012 PhD in Ecology, Grenoble

2008 Master in Biodiversity Ecology Environment, Grenoble

2008 Engineer in Biosciences, Bioinformatics and modelling, INSA, Lyon

2003 High school diploma obtained with the highest mention, Gap

Relevant skills -----

Theoretical: *Species coexistence*, community ecology, biogeography, landscape ecology, functional ecology, and phylogeny.

Analyses: *Biodiversity analyses, community analysis, species distributions, phylogenetic analyses, landscape modelling, statistic analysis of large databases, spatial analysis.*

Statistics: general linear and additive models, mixed models, multivariate analysis

Programming: excellent skills in R; academic knowledge in C, C++, Java, Python, bash, SQL and HTML

Field and lab work: plant trait measurements

Languages: French (mother tongue), English (good level), Spanish (European level B2)

General skills: Autonomy, team animation, organisation, working with international team

Research and work experience -----

2008-2012 **PhD** “Vulnerability of mountainous ecosystems to global change - a spatially explicit modelling approach and conservation implications.” *supervised by Wilfried Thuiller and Sébastien Lavergne (CNRS Grenoble)*

2008 **Master project** “Plant community structure of the French Alps” *supervised by Wilfried Thuiller (CNRS Grenoble)*

2007 **Engineer project** “CMR (Capture-Mark-Recapture) data takedown about cats in Kerguelen” *supervised by Dominique Pontier (CNRS Lyon)*

2006 **Engineer project** “Braitenberg vehicle modeling and simulations in C++” *supervised by Guillaume Beslon (CNRS-INSA Lyon)*

Teaching and mentoring experience-----

2011 **Co-supervision of a master student** P. Philippe “Modelling vegetation dynamics in the Alps”, Grenoble

2010 **Co-supervision of a master student** L. Zupan “Reserve selection in the French Alps in a climate and land use change context”, Grenoble

2009-2011 **Biostatistics course** “multivariate analysis with R” for Master degree, Grenoble

2006 **Mathematics teacher:** support for middle and high school students, Lyon

Journal referee -----

Agriculture, Ecosystems and Environment; Diversity and distributions; Global Change Biology; Global Ecology and Biogeography; Ecography.

Publications-----

(8) **Boulangeat, I.**, Philippe, P., Abdulhak, S., Douzet, R., Garraud, L., Lavergne, S., Lavorel, S., Van Es J., Vittoz, P. and Thuiller, W. (In press) Optimising plant functional groups for dynamic models of biodiversity: at the crossroad between functional and community ecology. *Global Change Biology*.

(7) de Bello, F., Lavorel, S., Lavergne, S., Albert, C.H., **Boulangeat, I.**, Mazel, F. and Thuiller, W. (In press) Hierarchical effects of environmental filters on the functional structure of plant communities: a case study in the French Alps. *Ecography*.

(6) **Boulangeat, I.**, Gravel, D. and Thuiller, W. (2012) Accounting for dispersal and biotic interactions to disentangle the drivers of species distributions and their abundances. *Ecology Letters*, 15, 584-593.

(5) Albert, C.H., de Bello, F., **Boulangeat, I.**, Pellet, G., Lavorel, S. and Thuiller, W. (2012) On the importance of intraspecific variability for the quantification of functional diversity. *Oikos*, 121, 116-126.

(4) **Boulangeat, I.**, Lavergne, S., Van Es, J., Garraud, L., Thuiller, W. (2012) Niche breadth, rarity and ecological characteristics within a regional flora spreading over large environmental gradients. *Journal of Biogeography*, 39, 204-214

(3) Thuiller, W., Lavergne, S., Roquet, C., **Boulangeat, I.**, Lafourcade, B. and Araújo, M.B. (2011) Consequences of climate change on the Tree of Life in Europe. *Nature*, 470, 531-534.

(2) Thuiller W., Gallien, L., **Boulangeat, I.**, de Bello, F., Münkemüller, T., Roquet-Ruiz, C. and Lavergne, S. (2010) Resolving Darwin's naturalization conundrum: a quest for evidence. *Diversity and Distributions*, 16, 461-475.

(1) Gallien, L., Münkemüller, T., Albert, C.H., **Boulangeat, I. (*)** and Thuiller, W. (2010) Predicting species invasions: where to go from here? *Diversity and Distributions*, 16, 331-342. (*) co-first author

Submitted

Boulangeat, I., Georges, D., Dentant, C., Thuiller, W. FATE-HD: A spatially and temporally explicit hybrid model for predicting the vegetation structure and diversity at regional scale.

Boulangeat, I., Georges, D., Dentant, C., Bonet, R., Van Es, J., Abdulayak, A., Zimmermann, N.E. and Thuiller, W. Consequences of climate and land use change on the vegetation structure and diversity in the Ecrins National Park.

Meynard, C., Lavergne, S., **Boulangeat, I.**, Garraud, L., Van Es, J., Mouquet, N. & Thuiller, W. Disentangling the drivers of metacommunity structure across spatial scales.

Travis, J.M.J., Delgado, M., Bocedi, G., Baguette, M., Bartoń, K., Bonte, D., **Boulangeat, I.**, Hodgson, J.A., Kubisch, A., Penteriani, V., Saastamoinen, M., Stevens, V.M., Bullock, J.M. Dispersal and biodiversity responses to climate change.

Oral presentations and posters in international Conferences -----

September 2011 (EEF): Disentangling mechanisms driving the individual abundance of species *Isabelle Boulangeat, Dominique Gravel, Wilfried Thuiller*, Avila, Spain. [Oral]

February 2010: Pattern of plant specialization in the French Alps *Isabelle Boulangeat, Wilfried Thuiller, Sébastien Lavergne, Jérémie Van Es, Luc Garraud*, Hambourg, Germany. [Oral]

September 2008: Plant community structure of the French Alps - specialists vs generalists - *Isabelle Boulangeat, Wilfried Thuiller and Sébastien Lavergne*, Leipzig. [poster]

International workshops -----

September 2011: "post Avila Dispersal Workshop" organized by M. Delgado and J. Travis, Segovia, Spain.