

CURRICULUM VITAE

PINGUET Yoann

Nationality: French
Date of Birth: December 05, 1982
Mobile: (+33) 6 83 30 42 51
Email: y.b-pinguet@orange.fr
www.lebagousse-pinguet.com

Marie Curie Post-doctoral fellow
King Juan Carlos University
Fernando Maestre's Lab
Department of Biology and Geology
28933 Mostoles, Spain

Research projects and positions

2015 - 2017 Marie Curie fellow: H2020 - Individual Fellowship (IF), DRYFUN project, n° 656035

Keywords: community assembly, desertification, ecosystem multifunctionality, ecosystem thresholds, functional diversity, large-scale gradients, phylogenetic diversity.

Approaches: observational.

Systems: drylands.

Fernando Maestre's lab, University Rey Juan Carlos, Spain.

2012 - 2015 Post-doctoral position

Keywords: community assembly, functional biogeography, functional diversity, large-scale gradients, phylogenetic diversity.

Approaches: observational.

Systems: alpine grasslands, drylands, limestone grasslands.

Jan Leps' lab, University of South Bohemia, the Czech Republic.

2010 – 2012 Post-doctoral position

Keywords: community assembly, disturbance, local stress gradients, plant interactions, taxonomic diversity.

Approaches: experimental (field experiments).

Systems: subalpine grasslands, calcareous grasslands, sand dune forests.

Richard Michalet's lab, University of Bordeaux, France.

2007 – 2010 University thesis (PhD)

Keywords: alternative states, ecosystem thresholds, eutrophication, grazing, nutrient manipulation, plant interactions, species distributions.

Approaches: experimental (mesocosm experiments).

Systems: freshwater ecosystems.

Dietmar Straile's lab, University of Constance, Germany.

2005 – 2006 Master degree (2nd year)

Keywords: community ecology, nutrient manipulation, plant interactions, water manipulation.

Approaches: experimental (field experiments).

Systems: coastal sand dunes.

Richard Michalet's lab, University of Bordeaux, France.

2004 – 2005 Master degree (1st year)

Keywords: functional diversity, land use, mycorrhiza, nutrient manipulation, plant interactions, plant-soil interactions.

Approaches: experimental (field and pot experiments).

Systems: subalpine grasslands.

Sandra Lavorel's lab, University of Grenoble, France.

University degrees

2007 - 2010 PhD position in Plant Ecology (University of Constance, Germany)

Title: Indirect facilitation as a structuring mechanism of submersed aquatic plants: a buffering role under abiotic and biotic constraints.

Date of PhD defense: 22nd October 2010

2004 - 2006 Master in Plant Ecology and Ecophysiology Sciences

Post-graduate Degree: University of Bordeaux (with honours).

Master's Degree: University of Grenoble (with honours).

General skills

Languages French (mother tongue), English (fluent), German (fluent), Spanish and Czech (basic level)

Diversities functional (intra- and interspecific), phylogenetic, taxonomic

Approaches observational and experimental (field, mesocosm and pot)

Experimental designs nested designs, full factorial designs

Statistic softwares JMP 7.0, R Core Team 2012 (v. 2.1.15)

Statistics linear and non linear regression models, mixed effect models, multiple regression models, SMA models, partial regression models, structural equation models (SEM), nested SEM, multivariate analyses, split-plot ANOVAs.

R packages ade4, FD, glmulti, lavaan, lme4, picante, sem, vegan.

Driving licence

Teaching and student training

Teaching (140h)

2015 Statistics (2h, Master and PhD degrees, University of South Bohemia, the Czech Republic)

Keywords: confirmatory multilevel path analyses, lavaan, structural equation models.

2014 Community ecology (1h, Master degree, University of South Bohemia, the Czech Republic)

Keywords: environmental gradient, facilitation, functional diversity, phylogenetic diversity.

Training in developing and conducting ecology research projects (42h, Master degree, University of South Bohemia, the Czech Republic)

Keywords: data analyses, intraspecific trait variability and functional turn-over, land-use management, development of hypotheses, bibliography searching.

2013 Training in developing and conducting ecology research projects (42h, Bachelor and Master degrees, University of South Bohemia, The Czech Republic)

Keywords: data analyses, inter and intraspecific functional diversities, diversity indices, development of hypotheses, bibliography searching.

Community ecology (7h, Master degree, University of South Bohemia, the Czech Republic)

Keywords: ecosystem responses, inter- and intraspecific functional diversities, multi-trait spaces.

Field excursions / general ecology (14h, Bachelor and Master degree, University of South Bohemia, the Czech Republic)

Keywords: community ecology, environmental gradients, plant interactions, species diversities, wet meadows.

Community ecology (7h, Master degree, University of Olomouc, the Czech Republic)

Keywords: functional niches, inter- and intraspecific functional diversities, multi-trait spaces, phylogenetic diversity, plant interactions.

2011 General ecology (10h, Master degree, University of Bordeaux, France)

Keywords: community ecology, ecosystem functioning, functional diversity, grazing disturbance, plant interactions, terrestrial and aquatic systems.

Field excursions / general ecology (6h, Bachelor degree, University of Bordeaux, France)

Keywords: coastal sand dunes, community ecology, disturbance, environmental stress gradients, plant interactions.

2008 Lab courses / systematic of zooplankton (3h, Master degree, University of Constance, Germany)

2006 Field excursions / general ecology (6h, Master degree, University of Bordeaux, France)

Keywords: coastal sand dunes, community ecology, disturbance, environmental stress gradients, plant interactions.

Student training (8 students)

PhD Co-supervision

2010 - 2012 Jean-Paul Maalouf, 2012 (University of Bordeaux, France)

Title: Interactive effects of climate change induced drought and land use on Southern European calcareous grasslands.

Supervisors: Pr. R. Michalet, Dr. B. Touzard.

2010 - 2012 Hassan Muhamed, 2012 (University of Bordeaux, France)

Title: Relative impact of the abiotic environment and plant interactions on the regeneration and distribution of oak-trees in coastal sand dunes.

Supervisor: Pr. R. Michalet

Student training

2011 Audrey Lefrancois (Master degree, University of Bordeaux, France)

Title: Phenotypic responses of *F. gautieri* to soil moisture stress.

2011 Quentin Sanz (Bachelor degree, University of Bordeaux, France)

Title: Relationship between plant functional traits and the outcome of plant interactions under soil moisture stress in subalpine grasslands.

2011 Coralie Rieu (Bachelor degree, University of Bordeaux, France)

Title: Phenotypic impact of a dominant species on the ecosystem functioning of subalpine grasslands.

2010 Céline Casali (Bachelor degree, University of Bordeaux, France)

Title: Experimental Phenotypic impact of a dominant species on the ecosystem functioning of subalpine grasslands.

2009 Vanessa Schneider (Master degree, University of Constance, Germany)

Title: Macrophyte response to grazing pressure by *A. ephemerella*.

2008 Stephanie Eschenbaecher (Master degree, University of Constance, Germany)

Title: Phenotypic response of *A. ephemerella* to intraspecific competition and lake eutrophication.

Editorial responsibilities (referee)

Research papers: Ecography (2), Ecology (2), Folia Geobotanica (2), Freshwater Biology (1), Functional Ecology (1), Fundamental and Applied Limnology (1), Journal of Ecology (4), Journal of Vegetation Science (4), New Phytologist (1), Oecologia (1), Oikos (6), Plant and Soil (1), Plant Ecology (1), PlosOne (4), Science (1), Trends in Ecology and Evolution (1)

Research proposals: Icelandic Research Fund (IRF, August 2014)

Referees

de Bello F. Associate Professor, University of South Bohemia, 37005 Ceske Budejovice, the Czech Republic (fradebello@ctfc.es).

Leps J. Full Professor, University of South Bohemia, 37005 Ceske Budejovice, the Czech Republic (suspa@prf.jcu.cz).

Maestre F.T. Associate Professor, Area de Biodiversidad y Conservación, Universidad Rey Juan Carlos, E-28933 Móstoles, Spain (phone : 34 91 488 8511; fernando.maestre@urjc.es).

Michalet R. Full Professor, UMR INRA 1202 BIOGECO, Université Bordeaux1, France (phone : 33 (0)5 40 00 88 95; r.michalet@ecologie.u-bordeaux1.fr).

Straile D. Associate Professor, University of Constance, Limnological Institute, Germany (phone: +49-(0)7531-88-2969; Dietmar.Straile@uni-konstanz.de)

PUBLICATIONS

* indicates first co-authorship

Submitted

Le Bagousse-Pinguet Y. *, Liancourt P.*, Gross N.*, de Bello F., Fonseca CR., Kattge J., Valencia E., Leps J., Maestre F.T. Climate, topography and soil factors interact to drive community trait distributions in global drylands.

Le Bagousse-Pinguet Y.*, Liancourt P.*, de Bello F., Altman J., Brozova V., Chlumska Z., Dvorsky M., Capkova K., Kopecky M., Rehakova K., Riha P., Leps J., Dolezal J. Elevational gradients and cushion plants produce opposite phylogenetic patterns at the edge of life.

2016

24. Volf M., Redmond C., Albert A.J., **Le Bagousse-Pinguet Y.**, Biella P., Götzenberger L., Hrazsky Z., Janecek S., Klimesova J., Leps J., Sebelikova L., Vlasata T., de Bello F. Effects of long- and short-term management on the functional structure of meadows through species turn-over and intraspecific trait variability. *Oecologia*, in press.

2015

23. **Le Bagousse-Pinguet Y.**, Börger L., Quéro J-L., Garcia-Gomez M., Soriano S., Maestre F.T., Gross N. Traits of neighbouring plants and space limitation determine intraspecific trait variability in semi-arid shrublands. *Journal of Ecology*, 103: 1647-1657.

22. Noumi Z., Chaieb M., **Le Bagousse-Pinguet Y.**, Michalet R. The relative contribution of short-term vs. long-term effects in shrub-understory species interactions under arid conditions. *Oecologia*, in press.

21. Siefert A. et al. A global meta-analysis of the relative extent of intra-specific trait variation in plant communities. *Ecology Letters*, 18: 1406-1419.

20. Kelemen A., Lazzaro L., Besnyoi V., Albert A-J., Konecna M., Dobay G., Memelink I., Adamec V., Götzenberger L., de Bello F., **Le Bagousse-Pinguet Y.**, Leps J. Net outcome of competition and facilitation changes with life stage and productivity in a wet meadow. *Preslia*, in press.

19. Kumordzi B.B., de Bello F., Freschet G.T., **Le Bagousse-Pinguet Y.**, Leps J., Wardle D. Linkage of plant trait space to successional age and species richness in boreal understorey vegetation. *Journal of Ecology*, 103: 1610-1620.

18. Carabajal-Paladino L., Muntaabski I., Lanzavecchia S., **Le Bagousse-Pinguet Y.**, Viscarret M., Juri M., Fueyo-Sanchez L., Papeschi A., Cladera J., Bressa MJ. 2015. Complementary sex determination in the parasitic wasp *Diachasmimorpha longicaudata*. *PlosOne*, e0119619.

17. Valencia E., Maestre F.T., **Le Bagousse-Pinguet Y.**, Quero J.L., Tamme R., Börger L., Garcia-Gomez M., Gross N. 2015. Functional diversity enhances the resistance of ecosystem multifunctionality to aridity in Mediterranean drylands. *New Phytologist*, 206: 660-671.

2014

16. Al Hayek P., Touzard B., **Le Bagousse-Pinguet Y.**, Michalet R. Phenotypic differentiation within a foundation grass species correlates with species richness in a subalpine community. 2014. *Oecologia*, 176: 533-544.

15. **Le Bagousse-Pinguet Y.**, Maalouf J.P., Touzard B., Michalet R. 2014. Importance, but not intensity of plant interactions relates to species diversity under the interplay of stress and disturbance. *Oikos* 123: 777-785. Selected as Editor Choice.
14. **Le Bagousse-Pinguet Y.**, de Bello F., Vandewalle M., Leps J., Sykes M. 2014. Species richness of limestone grasslands increases with trait overlap: evidence from within- and between-species functional diversity partitioning. *Journal of Ecology* 102: 466-474.
13. Schöb C. et al. 2014. A global analysis of bi-directional interactions in alpine communities shows facilitators experiencing strong reciprocal fitness costs. *New Phytologist* 202: 95-105.
12. Michalet R., **Le Bagousse-Pinguet Y.**, Maalouf J.P., Lortie C. 2014. The two alternatives to the Stress- Gradient-Hypothesis at the edge of life: the collapse of facilitation and the switch from facilitation to competition. *Journal of Vegetation Science* 25: 609-613.
11. **Le Bagousse-Pinguet Y.**, Xiao, S., Brooker R.W., Gross N., Liancourt P., Straile D., Michalet R. 2014. Facilitation displaces hot-spots of diversity and allows communities to persist in heavily stressed and disturbed environments. *Journal of Vegetation Science* 25: 66-76.

2013

10. Muhamed H., Touzard B., **Le Bagousse-Pinguet Y.**, Michalet R. 2013. The role of biotic interactions for the early establishment of oak seedlings in coastal dune forest communities. *Forest Ecology and Management* 297: 67-74.
9. Gross N., Soriano-Morales S., Börger L., **Le Bagousse-Pinguet Y.**, Quero J.L., Garcia-Gomez M., Valencia-Gomez E., Maestre F.T. 2013. Uncovering multi-scale effects of aridity and biotic interactions on the functional structure of Mediterranean shrublands. *Journal of Ecology* 101: 637-649.
8. **Le Bagousse-Pinguet Y.**, Forey E., Touzard B., Michalet R. 2013. Disentangling the effects of water and nutrients for studying the outcome of plant interactions in sand dune systems. *Journal of Vegetation Science* 24: 375-383.

2012

7. Maalouf J.P., **Le Bagousse-Pinguet Y.**, Marchand L., Touzard B., Michalet R. 2012. The interplay of stress and mowing disturbance for the intensity and importance of plant interactions in dry calcareous grasslands. *Annals of Botany* 110: 821-828.
6. Maalouf J.P., **Le Bagousse-Pinguet Y.**, Marchand L., Bachelier E., Touzard B., Michalet R. 2012. Integrating climate change into calcareous grassland management. *Journal of Applied Ecology* 49: 795-802.
5. Fridley J., Grime J.P., Huston M.A., Pierce S., Smart S.M., Thompson K., Börger L., Brooker R.W., Bruno E.L., Gross N., Liancourt P., Michalet M., **Le Bagousse-Pinguet Y.** 2012. Comment on "Productivity is a poor predictor of plant species richness". *Science* 335: 1441.
4. **Le Bagousse-Pinguet Y.**, Liancourt P., Gross N., Straile D. 2012. Indirect facilitation promotes macrophyte survival and growth in freshwater ecosystems threatened by eutrophication. *Journal of Ecology* 100: 530-538.
3. **Le Bagousse-Pinguet Y.**, Gross E., Straile D. 2012. Release from competition and protection determine the outcome of plant interactions along a grazing gradient. *Oikos* 121: 95-101.

2010

2. Gross N., **Le Bagousse-Pinguet Y.**, Liancourt P., Urcelay C., Roumet C., Lavorel S. 2010. Trait-mediated effect of arbuscular mycorrhiza on the competitive effect and response of a monopolistic species. *Functional Ecology* 24: 1122-1132.

2008

1. Gross N., Lavorel S., Robson T.M., Albert C., **Le Bagousse-Pinguet Y.**, Guillemin R. 2008. Plant response traits mediate the effect of subalpine grassland on soil moisture. *New Phytologist* 180: 652-662.

Book chapters

1. D'Amico F., Bardonnnet A., Delzon S., Michalet R., Vles V., Berroneau M., Largier G., **Le Bagousse-Pinguet Y.**, Maalouf J.P., Sota A., Touzard B., Urcun J.P. (2013) Chapitre 7 : La montagne, In: Le Treut H. (coord.) : Les impacts du changement climatique en Aquitaine. Un état des lieux scientifique. Presses Universitaires de Bordeaux, LGPA-Editions, Pessac.

Communications and posters

- **Le Bagousse-Pinguet Y.** et al. Climate, topography and soil factors interact to drive community trait distributions in global drylands. IAVS Meeting, Brno, the Czech Republic, 2015. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Climate and topo-edaphic conditions drive community trait distributions in global drylands. BES-SFE Meeting, Lille, France, 2014. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. The dark side of phylogenetic conservatism at the edge of life. Czech Academy of Sciences, Trebon, the Czech Republic, 2014. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Rainfall and neighbouring plant traits interact to determine intra-specific trait variability in semi-arid shrublands. Czech Academy of Sciences, Trebon, the Czech Republic, 2013. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Phylodiversity at the edge of life: the matter of species pool, elevation and plant interactions. GFÖ Meeting, Potsdam, Germany, 2013. Oral presentation.
- Michalet R., **Le Bagousse-Pinguet Y.**, Maalouf J.P. The contribution of local-scale facilitative interactions for community diversity and composition. INTECOL Symposium, London, UK, 2013. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Species richness increases with trait overlap in limestone grasslands. IAVS Meeting, Tartu, Estonia, 2013. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Interacting effects of a water stress gradient and mowing on the functional structure of subalpine grasslands. SYSTERA Meeting, Toulouse, France, 2011. Oral presentation.

- **Le Bagousse-Pinguet Y.** et al. Changes in plant interactions along grazing disturbance gradients in a freshwater ecosystem. SFB Symposium: The role of Littoral processes in Lake Ecology, Constance, Germany, 2010. Poster.
- Straile D., Miler O., Eschenbacher S., **Le Bagousse-Pinguet Y.** Foodweb interaction in macrophyte beds. SFB Symposium: The role of Littoral processes in Lake Ecology, Constance, Germany, 2010. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Linking biodiversity to plant interactions along biotic disturbance and environmental severity gradients: using a response surface model. BES Symposium: Facilitation in Plant Communities, Aberdeen, UK, 2009. Poster.
- **Le Bagousse-Pinguet Y.** et al. Experimental evidence for a littoral trophic cascade in macrophyte beds. ASLO Meeting, Nice, France, 2009. Oral presentation.
- **Le Bagousse-Pinguet Y.** et al. Experimental evidence for a littoral trophic cascade in macrophyte beds. Oikos Meeting, Lund, Sweden, 2008. Poster.
- Michalet R., Forey E., Touzard B., **Le Bagousse-Pinguet Y.**, Gross N., Liancourt P. 2007. Biotic interactions in water-stressed environments. OPTIMA, Pisa, Italia, 2007. Oral presentation.