



Ph.D candidate in the German Center for Integrative Biodiversity Research (iDiv) Halle – Jena – Leipzig. I am working on tree diversity effects on soil microbial community and soil functioning including litter decomposition and soil carbon storage.

Research interest: BEF, ecosystem ecology, soil ecology, microbial ecology, food web ecology, synthesis

# Rémy Beugnon

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## Languages

French – native  
English – fluent

## Field skills

- Subtropical China field campaign
- Litterfall, insect and soil sampling
- Performing decomposition experiment

## Lab skills

- Microbial biomass (e.g., PLFA)
- Microbial physiology (e.g., MicroResp®)
- Insect identification

## Analysis skills

- Multivariate analysis (e.g. PCA, RDA)
- Frequentist statistic (e.g. linear, non-linear, mixed effects models)
- Spatio-temporal analysis
- Structural Equation Modelling
- Network analysis (basic knowledge)
- Bayesian statistics (basic knowledge)

## Programming skills

R – advanced  
Bash – basic knowledge  
LaTeX – basic knowledge  
Python/HTML/SQL/GIS – basic knowledge

## Research experiences

**07.2018 to now**

**Ph.D thesis - German Center for Integrative Biodiversity Research (iDiv) Halle – Jena – Leipzig , Leipzig (Germany)**

*Tree diversity effects on soil microbial communities and soil carbon dynamics*

Supervision: Dr. Simone Cesarz, Prof. Dr. Nico Eisenhauer

Main topics: tree interactions effects on litterfall, decomposition, microbial community composition and functions and soil carbon storage

**01.2018 to 06.2018**

**MSc. thesis - Institut des Sciences de l'Evolution de Montpellier ISME, Montpellier (France)**

*Modelling non-trophic interactions effects on community dynamics.*

Supervision: Dr. Sonia Kéfi, Dr. Vasilis Dakos

**04.2017 to 07.2017**

**Internship - Swedish University of Agricultural Sciences (SLU), Umeå (Sweden)**

*Root trait effects of alpine plant communities on plant-soil feedback effects performed in two greenhouse experiments.*

Supervision: Dr. Paul Kardol

## Education

**09.2017-06.2018**

**Master's degree in biology, ecology and evolution – Université de Montpellier, France**

**09.2014-11.2018**

**Agricultural engineering diploma – Montpellier SupAgro, France**

# Publications

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## 2019

**Beugnon, Rémy**; Steinauer, Katja; Barnes, Andrew D.; Ebeling, Anne; Roscher, Christiane; Eisenhauer, Nico (2019): *Plant functional trait identity and diversity effects on soil meso-and macrofauna in an experimental grassland*. In *Advances in ecological research* 61, p. 163-184. DOI: 10.1016/bs.aecr.2019.06.004

Cesarz, Simone; Schulz, Annika Eva; **Beugnon, Rémy**; Eisenhauer, Nico (2019): *Testing soil nematode extraction efficiency using different variations of the Baermann-funnel method*. In *Soil Organisms* 91 (2), p. 61. DOI: 10.25674%2Fso91201

## 2021

Phillips, Helen R. P.; Bach, Elizabeth M.; Bartz, Marie L. C.; Bennett, Joanne M.; **Beugnon, Rémy**; Briones, Maria J. I. et al. (2021): *Global data on earthworm abundance, biomass, diversity and corresponding environmental properties*. In *Scientific Data* 8 (1), p. 136. DOI: 10.1038/s41597-021-00912-z.

Thouvenot, Lise; Ferlian, Olga; **Beugnon, Rémy**; Künne, Tom; Lochner, Alfred; Thakur, Madhav P.; Türke, Manfred; Eisenhauer, Nico (2021): *Do invasive earthworms affect the functional traits of native plants?* In *Frontiers in plant science* 12, p. 424. DOI: 10.3389/fpls.2021.627573

*In preparation*

**Beugnon, Rémy**; Bu, Wensheng; Bruelheide, Helge; Davrinche, Andréa; Du, Jianqing; Haider, Sylvia; Kunz, Matthias; von Oheimb, Goddert; Perles-Garcia, Maria D.; Saadani, Mariem; Scholten, Thomas; Seitz, Steffen; Singavarapu, Bala; Trogisch, Stefan; Wang, Yanfen; Wubet, Tesfaye; Xue, Kai; Yang, Bo; Cesarz, Simone & Eisenhauer, Nico **(under review)**: *Abiotic and biotic drivers of scale-dependent tree trait effects on soil microbial biomass and soil carbon concentration*. In *Ecological Monographs*

**Beugnon, Rémy**† & Du Jianqing†; Cesarz, Simone; Jurburg, Stephanie D.; Pang, Zhe; Singavarapu, Bala; Wubet, Tesfaye; Xue, Kai; Wang, Yanfen & Eisenhauer, Nico **(under review)**: *Tree diversity and soil chemical properties drive the linkages between soil microbial community and ecosystem functioning*. In *ISME Communications*

**Beugnon, Rémy**; Eisenhauer, Nico; Bruelheide, Helge; Davrinche, Andréa; Du, Jianqing; Haider, Sylvia; Haehn, Georg; Saadani, Mariem; Singavarapu, Bala; Sünemann, Marie; Thouvenot, Lise; Wang, Yanfen; Wubet, Tesfaye; Xue, Kai; Cesarz, Simone **(in prep.)**: *Tree diversity effects on litter decomposition are mediated by litterfall and microbial processes*.

Singavarapu, Bala; **Beugnon, Rémy**; Bruelheide, Helge; Cesarz, Simone; Du, Jianqing; Eisenhauer, Nico; Guo, Liang-Dong; Nawaz, Ali; Wang, Yanfen; Xue, Kai; Wubet, Tesfaye **(under review)**: *Tree mycorrhizal type and tree diversity shape the forest soil microbiome*. In *Environmental Microbiology*

Schnabel, Florian†; **Beugnon, Rémy**†; Bo, Yang†; Castro Izaguirre, Nadia Cristina; Cesarz, Simone; Eisenhauer, Nico; Garcia, Maria Dolores Perles; Haehn, Georg; Härdtle, Werner; Huang, Yuanyuan; Kunz, Matthias; Liu, Xiaojuan; Niklaus, Pascal A.; von Oheimb, Goddert; Pietsch, Katherina A.; Richter, Ronny; Schmid, Bernhard; Trogisch, Stefan; Wirth, Christian; Ma, Keping<sup>S</sup> & Bruelheide Helge<sup>S</sup> **(in prep.)**: *The role of tree species richness for temperature buffering below forest canopies*.

## Reviewer

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Nature Communications, Scientific Reports, Pedobiologia, Soil Organisms

## Teaching

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**2021** - Introduction to stats in R for bachelors and master students (12h)

## Outreach

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**2019 to 2021** - Guest editor for Frontiers for Young Minds collection "Soil biodiversity"

**2021** - Contribution to the Leipzig's Long Night of Sciences

## Oral presentations and invited talks

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**2018** - "*Effect of non-trophic interactions on community dynamics*", Model in Ecology and Evolution conference – Montpellier, France

**2019** - "Effects of tree functional diversity on soil community and function", iDiv conference – Leipzig, Germany

**2020**

*"To a mechanistical understanding of plant diversity effects on soil fauna community"*, Laboratoire d'écologie alpine (LECA) – Grenoble, France

*"Abiotic and biotic mediations of scale dependent tree traits effects on soil carbon concentrations"*, BES annual meeting 2020 – Virtual

## Professionalization courses

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**2021** - Third Party Funding Opportunities

**2020**

- Scientific writing
- Introduction to ggplot2
- Good scientific practices

**2019**

- Structural Equation Modeling
- Nematode identification course

## Participation to institutional activities

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**09.2021** - Ph.D representative for iDiv Equal Opportunity comity

**2021** - Interviews of senior researcher about "transdisciplinary research" for the GfÖ Twitter account

**2018-2021**

- Organization of afterwork activities for the Experimental Interaction Ecology (EIE) working group
- Organization of welcome packages for new members of the EIE working group