

# Matthias Grenié

Postdoctoral Researcher

Curriculum Vitae  
May 2022

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## Scientific Education

2016-2020	<b>PhD in Ecology</b> Montpellier, France ➤ Supervised by <b>Dr. Cyrille Violle</b> and <b>Pr. François Munoz</b> . ➤ PhD title: 'Outside the norm: deviation from ecological optimality and functional originality'	CEFE, Montpellier University
2013-2015	<b>MSc. in General Biology</b> Lyon, France	École Normale Supérieure de Lyon
2012-2013	<b>Bsc. in General Biology</b> Lyon, France	École Normale Supérieure de Lyon

## Academic Experience

Oct. 2020-now	<b>Postdoctoral Researcher</b> Leipzig, Germany ➤ Working with <b>Dr. Marten Winter</b> on the functional biogeography of alien plants	German Center for Integrative Biodiversity Research iDiv / Leipzig University
2016-2020	<b>PhD Student</b> Montpellier, France	Montpellier University
Feb. 2015-June 2015	<b>Master Intern</b> Kourou, French Guiana, France ➤ Supervised by <b>Dr. Bruno Hérault</b> on intraspecific variability in tropical trees growth in function of functional traits	EcoFOG
Sept. 2014-Dec. 2014	<b>Master Intern</b> Montpellier, France ➤ Supervised by <b>Dr. Ophélie Ronce</b> on matrix population models	ISEM, University of Montpellier
Feb. 2014-July 2014	<b>Master Intern</b> Bloomington, IN, USA ➤ Supervised by <b>Dr. Jean-François Goût</b> in Michael Lynch's lab on trait motifs in the *Paramecium* complex	Indiana University

## Scientific Supervision

Master students supervision. Charlotte & Nathan.

## Scientific Service

Elected Lab council, peer reviews for XX and YY journals, reviewer for rOpenSci, conference organization (MEE), half-day workshop on Open Science CEFE R User Group. Organize sDiv lab meetings. PhD Advisory Committee.

## Scientific Projects

Active member of FREE CESAB group, GloNAF, Impacts CESAB group.

## Scientific Contributions

### Publications

- Grenié M, Denelle P, Tucker CM, Munoz F, Violle C. 2017 Funrar: An R Package to Characterize Functional Rarity. *Diversity and Distributions* **23**, 1365–1371. (doi:10.1111/ddi.12629)
- Violle C, Thuiller W, Mouquet N, Munoz F, Kraft NJB, Cadotte MW, Livingstone SW, Grenié M, Mouillot D. 2017 A Common Toolbox to Understand, Monitor or Manage Rarity? A Response to Carmona et Al. *Trends in Ecology & Evolution* **32**, 891–893. (doi:10.1016/j.tree.2017.10.001)

3. Munoz F, Grenié M, Denelle P, Taudière A, Laroche F, Tucker C, Violle C. 2018 Ecolottery: Simulating and Assessing Community Assembly with Environmental Filtering and Neutral Dynamics in R. *Methods in Ecology and Evolution* **9**, 693–703. (doi:10.1111/2041-210X.12918)
4. Grenié M, Mouillot D, Villéger S, Denelle P, Tucker CM, Munoz F, Violle C. 2018 Functional Rarity of Coral Reef Fishes at the Global Scale: Hotspots and Challenges for Conservation. *Biological Conservation* **226**, 288–299. (doi:10.1016/j.biocon.2018.08.011)
5. Barnagaud J-Y, Mazet N, Munoz F, Grenié M, Denelle P, Sobral M, Kissling WD, Şekercioğlu ÇH, Violle C. 2019 Functional Biogeography of Dietary Strategies in Birds. *Global Ecology and Biogeography* **28**, 1004–1017. (doi:10.1111/geb.12910)
6. Joffard N, Massol F, Grenié M, Montgelard C, Schatz B. 2019 Effect of Pollination Strategy, Phylogeny and Distribution on Pollination Niches of Euro-Mediterranean Orchids. *Journal of Ecology* **107**, 478–490. (doi:10.1111/1365-2745.13013)
7. Grenié M, Violle C, Munoz F. 2020 Is Prediction of Species Richness from Stacked Species Distribution Models Biased by Habitat Saturation? *Ecological Indicators* **111**, 105970. (doi:10.1016/j.ecolind.2019.105970)
8. Loiseau N et al. 2020 Global Distribution and Conservation Status of Ecologically Rare Mammal and Bird Species. *Nature Communications* **11**, 5071. (doi:10.1038/s41467-020-18779-w)
9. Mouillot D et al. 2021 The Dimensionality and Structure of Species Trait Spaces. *Ecology Letters* **24**, 1988–2009. (doi:10.1111/ele.13778)
10. Grenié M, Berti E, Carvajal-Quintero J, Dädlow GML, Sagouis A, Winter M. 2022 Harmonizing Taxon Names in Biodiversity Data: A Review of Tools, Databases and Best Practices. *Methods in Ecology and Evolution* **n/a**. (doi:10.1111/2041-210X.13802)

### Conference Proceedings

1. Grenié M, Berti E, Carvajal-Quintero J, Winter M, Sagouis A. 2021 Matching Species Names Across Biodiversity Databases: Sources, Tools, Pitfalls and Best Practices for Taxonomic Harmonization. *Biodiversity Information Science and Standards* **5**, e75359. (doi:10.3897/biss.5.75359)

### R Packages

Name	Description	Status
<code>funrar</code>	computes functional originality	on GitHub
<code>ecolottery</code>	bla	test
<code>rtaxref</code>	bla	test
<code>rromeo</code>	bla	test
<code>fundiversity</code>	bla	test
<code>funbiogeo</code>	bla	test

- **funrar** computes functional originality indices central for CESAB FREE group analyses, [published paper], CRAN link, GitHub link
- **ecolottery** simulates community assembly processes cleverly with both niche and neutral processes, [published paper], CRAN link, GitHub link
- **rtaxref** accesses the French Taxonomic Referential (TAXREF) API, GitHub link
- **rromeo** accesses the Sherpa/RoMEO API on Open Access journals, reviewed by rOpenSci, CRAN link, GitHub link
- **fundiversity** is a fast and modular package to compute functional diversity indices, CRAN link, GitHub link
- **funbiogeo** helps to create functional biogeography workflows, developed in the context of the FREE CESAB group, GitHub link
- Contributions to several biodiversity packages: **taxize**

### Invited Talks

Göttingen lab seminar, D2KAB workshop.

### Talks

### Blogposts

1. Grenié M, Gruson H. 2019 Access Publisher Copyright & Self-Archiving Policies via the 'SHERPA/RoMEO' API. *rOpenSci blog*.
2. Grenié M, Berti E, Carvajal-Quintero J, Dädlow GML, Sagouis A, Winter M. 2022 Best Practices for Taxonomic Harmonization, an Overlooked yet Crucial Step in Biodiversity Analyses. *Methods Blog*.
3. Grenié M, Gruson H. 2020 Community Captioning of rOpenSci Community Calls. *rOpenSci blog*.

## Teaching

Summary table. Year, Institution, Name of course, role, number of students.

## Skills

### Languages

French, English, Spanish, German, Chinese, Japanese

### Programming languages

R practices, data visualization, spatial data, SQL, HPC, git + GitHub collaborative development.