

# JULIEN BARRERE

## »»» EXPERIENCE

**Research fellow** INRAE - Aix-en-Provence, Since 01/25

- » Resilience of ecosystem services in mediterranean forests

**Postdoctoral researcher** INRAE - Grenoble, 2021/10 - 2024/07

- » Resilience of European forests to disturbances
- » Analyzed large datasets (NFI, Climate), developed a forest dynamics model, published 4 scientific articles, attended two international conferences, participated to two European research projects (Biodiversa+ and H2020)

**Doctoral researcher** INRAE - Champenoux, 2018/09 - 2021/09

- » Designed experimental protocols, conducted field work, frequentist and Bayesian statistical analyses, published 5 scientific articles, supervised 3 interns, gave GIS lectures to a group of 13 McS students

**Visiting researcher** SLU - Alnarp (Sweden), 2020/01 - 2020/03

- » Fundraising, set up a collaboration with local researchers on several projects.

**Research engineer** French Agency for Biodiversity - Brest, 2018/01 - 2018/07

- » Optimized the source code of anthropogenic pressures on marine ecosystems (R language), implemented the assessment of uncertainties

**Research Assistant** CEFE - Montpellier, 2017/03 - 2017/08

- » Internship on the influence of climate and deer browsing on fir, beech and spruce functional leaf traits

**Research Assistant** Lajuma - South Africa, 2016/03 - 2016/07

- » Internship on the role of civets in seed dispersal in a subtropical forest

## »»» EDUCATION

**PhD in Forest Ecology** University of Lorraine - Nancy, 2018 - 2021

- » Topic: Influence of wild ungulates on the regeneration of plain hardwood forests

**M.Sc in Ecology** University of Burgundy - Dijon, 2015 - 2017

- » Conservation biology, population dynamic, genetic, science history

**Agronomist engineer degree** Agrosup Dijon, 2014 - 2017

- » Crop and livestock production, environmental law, statistics, GIS, management, foreign languages

**Preparatory class** Lakanal Highschool - Sceaux, 2012 - 2014

- » Biology, physic, chemistry, mathematics

## »»» OTHER ACTIVITIES

**Humanitarian project** Limpopo province (South Africa), 2016

- » Fundraising, and set up of a greenhouse in the preschool of Tswelopele

**Worker in a vineyard** Villié-Morgon, 2014 (6 weeks)

**Private math tutor** Courbevoie, 2012



## CONTACT

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## LANGUAGES

French

English

Spanish

Arabic

## PROGRAMMING

R

LaTeX, Git, SVN

Python, Java, shell, html/css

## INTERESTS

Sports (Rugby, Taekwondo, Hiking)

Music (Guitar, Ukulele)

Travels

Nature photography

## REFERENCES

Georges KUNSTLER (INRAE)  
georges.kunstler@inrae.fr

Sonia SAID (OFB)  
sonia.said@ofb.gouv.fr

Vincent BOULANGER (ONF)  
vincent.boulanger@onf.fr

- » Bernard, M., **Barrere, J.**, Morin, X., Saïd, S., Boulanger, V., Granda, E., Benavides, R., Jactel, H., Heurich, M., Rabasa, S. G., Valladares, F., Kunstler, G. (2024). Elevation affects both the occurrence of ungulate browsing and its effect on tree seedling growth for four major tree species in European mountain forests. *Annals of Forest Science*. 81:13. <https://doi.org/10.1186/s13595-024-01226-x>.
- » **Barrere, J.**, Reineking, B., Jaunatre, M., Kunstler, G. (2024). Forest resilience to storm disturbances depends on interplay between functional composition and climate - insights from European-scale simulations. *Functional Ecology*. <https://doi.org/10.1111/1365-2435.14489>
- » **Barrere, J.**, Ligot, G., Boulanger, V., Collet, C., Courbaud, B., de Coligny, F., Marell, A., Saïd, S., Balandier, P. (2024). Oak regeneration facing deer browsing : can competition between saplings offset the diversion effect ? A simulation experiment. *Ecological modelling*. 489:110608. <https://doi.org/10.1016/j.ecolmodel.2023.110608>
- » Kulha, N., Honkaniemi, J., **Barrere, J.**, Brandl, S., Cordonnier, T., Korhonen, K., Kunstler, G., Paul, C., Reineking, B., Peltoniemi, M. (2023). Competition-induced tree mortality across Europe is driven by shade tolerance, proportion of conspecifics and drought. *Journal of Ecology*. <https://doi.org/10.1111/gcb.16630>
- » **Barrere, J.**, Reineking, B., Cordonnier, T., Kulha, N., Honkaniemi, J., Peltoniemi, M., Korhonen, K., Ruiz-Benito, P., Zavala, M., Kunstler, G. (2023). Functional traits and climate drive interspecific differences in disturbance-induced tree mortality *Global Change Biology*. <https://doi.org/10.1111/gcb.16630>
- » **Barrere, J.**, Collet, C., Saïd, S., Bastianelli, D., Verheyden, H., Courtines, H., Bonnet, A., Segrestin, J., Boulanger, V. (2022). Do trait responses to simulated browsing in *Quercus robur* saplings affect their attractiveness to *Capreolus capreolus* the following year? *Experimental and Environmental Botany*. 194:104743. <https://doi.org/10.1016/j.envexpbot.2021.104743>
- » Löf, M., **Barrere, J.**, Petersson, L. K., Engman, M., Villalobos, A. (2020). The influence of fencing on seedling establishment during reforestation of oak stands: A comparison of artificial- and natural regeneration techniques including costs. *European Journal of Forest Research*. 140: 807-817. <https://doi.org/10.1007/s10342-021-01369-w>
- » **Barrere, J.**, Petersson, L. K., Boulanger, V., Collet, C., Felton, A. M., Löf, M., Saïd, S. (2020). Canopy openness and exclusion of wild ungulates act synergistically to improve natural regeneration of oak. *Forest Ecology and Management*. 487: 118976. <https://doi.org/10.1016/j.foreco.2021.118976>
- » **Barrere, J.**, Boulanger, V., Collet, C., Walker, E., Siat, V., Henry, L., Saïd, S. (2020). How does oak mast seeding affect the feeding behavior of sympatric red and roe deer ? *Basic and Applied Ecology*. 47: 83-94. <https://doi.org/10.1016/j.baae.2020.04.006>
- » Quemmerais-Amice, F., **Barrere, J.**, La Rivière, M., Contin, G., Bailly, D. (2020). A methodology and tool for mapping the risk of cumulative effects on benthic habitats. *Frontiers in Marine Science*. 7: 966. <https://doi.org/10.3389/fmars.2020.569205>
- » **Barrere, J.**, Saïd, S., Boulanger, V., Morin, X., Rowe, N., Amiaud, B., Bernard, M. (2019). The cost of deer to trees: changes in resource allocation from growth-related traits and chemical defence to structural defence. *Plant Ecology and Evolution*. 152: 417-425. <https://doi.org/10.5091/plecevo.2019.1593>
- » Blouin, M., **Barrere, J.**, Meyer, N., Lartigue, S., Barot, S., Mathieu, J. (2019). Vermicompost significantly affects plant growth. A meta-analysis. *Agriculture for Sustainable Development*. 39:34. <https://doi.org/10.1007/s13593-019-0579-x>

»»» THESIS

- » **Barrere, J.** (2021). Interactions between oak and cervids during the process of forest regeneration – the case study of plain temperate oak stands (*Quercus robur* and *Q. Petraea*). PhD thesis. Lorraine University, Nancy, France.

## »»» CONFERENCES

- » **Barrere, J.**, Reineking, B., Jaunatre, M., Kunstler, G. (2024). Forest resilience to storm disturbances depends on interplay between functional composition and climate - insights from European-scale simulations. *British Ecological Society Annual Meeting*, 12-15th of December 2023, Belfast, UK (oral presentation).
- » **Barrere, J.**, Ligtot, G., Boulanger, V., Collet, C., Courbaud, B., de Coligny, F., Marell, A., Saïd, S., Balandier, P. Including ungulate browsing in the regeneration library of Capsis4: model description and example of simulations. *FOREM*, 23 May 2023, Grenoble, France (oral presentation)
- » **Barrere, J.**, Reineking, B., Cordonnier, T., Honkaniemi, J., Kulha, N., Peltoniemi, M., Ruiz-Benito, P., Zavala, M., Kunstler, G. How do functional traits and climate drive interspecific differences in disturbance-induced tree mortality? *Joint annual meeting SFE<sup>2</sup> GFÖ EEF*, 21 Nov. 2022, Metz, France (oral presentation)
- » **Barrere, J.**, Reineking, B., Cordonnier, T., Honkaniemi, J., Kulha, N., Peltoniemi, M., Ruiz-Benito, P., Zavala, M., Kunstler, G. How do functional traits and climate drive interspecific differences in disturbance-induced tree mortality? *Forest Disturbance and Ecosystem Dynamics Symposium*, 20 Sept. 2022, Berchtesgaden National Park, Germany (poster presentation).

## »»» SCIENCE COMMUNICATION

- » Saïd, S., Saba, C., Laurent, L., **Barrere, J.**, Reeb, M., Tissaux, J., Warnant, C., Lambert, J., Cuiller, B. (2019). Influence des populations d'ongulés sauvages sur la régénération forestière du chêne : le dispositif EFFORT. *Faune Sauvage*. 322: 25-30.

## »»» SUPERVISION

- » 2020/01 – 2020/06: Héroïse Courtines, MSc, Toulouse University, France (co-supervision at 50%)
- » 2019/03 – 2019/08: Agathe Le Goff, MSc, Lorraine University, France (full supervision)
- » 2019/04 – 2019/06: Paul Bielle, L3, Pau University, France (full supervision)

## »»» FUNDINGS

- » 2019: Research mobility grant from the DrEAM program of the University of Lorraine, n° MDD/DrEAM/2019-11/N°2 (3.6K€)
- » 2018-2021: PhD grant co-funded by the National Forest Office (ONF), the French Office for Biodiversity (OFB) and the National Institute for Agricultural and Environmental Research (INRAE), n°CNV-REC-2018/07 (177K€)

## »»» PRIZES

- » 2020: Best oral presentation at the SIRENa doctoral school annual seminar, Nancy (national conference)

## »»» EDITORIAL WORK

- » Reviewer for ecological journals: Ecology, Journal of Ecology, Forest Ecology and Management, Scientific Report, Ecology and Evolution, Journal of Tropical Ecology.