

David García-Callejas

CONTACT INFORMATION	<p>University of Cadiz Ecology Unit, Dpt. of Biology Campus de Puerto Real, 11510 Puerto Real (Cadiz, Spain)</p> <p>+34 620456021 david.garcia.callejas@gmail.com</p>	<p>ORCID: 0000-0001-6982-476X Google Scholar Publons GitHub Twitter</p>
RESEARCH INTERESTS	<p>I am a community ecologist broadly interested in understanding the structure and dynamics of ecological assemblages, their spatiotemporal patterns, and their response to global change drivers. In particular, I study the role of biotic interactions in shaping local and regional patterns of diversity and coexistence. In approaching these themes, I aim to bridge theoretical approaches to fundamental questions with field experiments and observations.</p>	
CURRENT APPOINTMENTS	<p>Postdoctoral researcher, University of Cadiz</p>	<p>February 2020 to present</p>
PREVIOUS APPOINTMENTS	<p>Postdoctoral researcher, EBD-CSIC</p> <p>Doctoral researcher, CREAM-UAB</p> <p>Research technician, Imperial College</p> <p>Research technician, University of Évora</p> <p>Research technician, CREAM</p>	<p>January 2019 to November 2019</p> <p>September 2014 to November 2018</p> <p>January 2014 to August 2014</p> <p>March 2013 to January 2014</p> <p>September 2012 to February 2013</p>
EDUCATION	<p>Ph.D. in Terrestrial Ecology, Autonomous University of Barcelona 11/2018</p> <ul style="list-style-type: none">• Thesis Title: <i>Structure and dynamics of ecological networks with multiple interaction types</i>• Advisors: Dr. Miguel B. Araújo, Dr. Roberto Molowny-Horas• Qualification: <i>Magna Cum Laude</i> with International Doctorate Distinction• Associated stays: Integrative Ecology Lab, Univ. of Sherbrooke (Quebec), 09–12/2017, supervised by Prof. Dominique Gravel <p>M.Sc. in Terrestrial Ecology, Autonomous University of Barcelona 09/2012</p> <ul style="list-style-type: none">• Thesis Title: <i>Projecting the distribution and abundance of Mediterranean tree species under climate change: a demographic approach</i>• Advisors: Prof. Javier Retana, Dr. Roberto Molowny-Horas• 60 ECTS <p>B.S. in Environmental Sciences, University of Alcalá 07/2010</p> <ul style="list-style-type: none">• 300 ECTS <p>B.S. in Computer Science, University of Granada 09/2006</p> <ul style="list-style-type: none">• 180 ECTS	
REFEREED JOURNAL PUBLICATIONS	<p>[1] García-Callejas, D., De la Cruz Rot, M. 2020. Cómo crear paquetes de R. <i>Ecosistemas</i>, 29:1948. doi:10.7818/ECOS.1948</p> <p>[2] García-Callejas, D., Molowny-Horas, R., Araújo, M.B., Gravel, D. 2019. Spatial cascades in communities connected by dispersal and foraging. <i>Ecology</i>, 100:e02820. doi:10.1002/ecy.2820</p>	

- [3] **García-Callejas, D.**, Torres, A. 2019. Restauración de interacciones ecológicas: medidas y consecuencias a escala de comunidad. *Ecosistemas*, 28:42-49. doi:10.7818/ECOS.1748
- [4] **García-Callejas, D.**, Molowny-Horas, R., Araújo, M.B. 2018. The effect of multiple biotic interaction types on species persistence. *Ecology*, 99:2327–2337. doi:10.1002/ecy.2465
- [5] **García-Callejas, D.**, Molowny-Horas, R., Araújo, M.B. 2018. Multiple interactions networks: towards more realistic descriptions of the web of life. *Oikos*, 127:5–22. doi:10.1111/oik.04428 (Editor's choice)
- [6] **García-Callejas, D.**, Molowny-Horas, R., Retana, J. 2017. Projecting the distribution and abundance of Mediterranean tree species under climate change: a demographic approach. *Journal of Plant Ecology*, 10:731–743. doi:10.1093/jpe/rtw081 (Editor's choice)
- [7] **García-Callejas, D.**, Araújo, M.B. 2016. The effects of model and data complexity on predictions from species distributions models. *Ecological Modelling*, 326:4–12. doi:10.1016/j.ecolmodel.2015.06.002
- PREPRINTS AND PAPERS IN PREPARATION
- [8] **García-Callejas, D.**, Godoy, O., Bartomeus, I. CXR: A toolbox for modelling species coexistence in R. *Manuscript under review*. Associated R package: <https://github.com/RadicalCommEcol/cxr>
- [9] Taheri, S., **García-Callejas, D.**, Araújo, M.B. Discriminating climate, land-cover and random effects on species range dynamics *Manuscript under review*.
- [10] Mestre, F., Gravel, D., **García-Callejas, D.**, Pinto-Cruz, C., Matías, M.G., Araújo, M.B. Disentangling environment food web relationships: a review with guidelines *Manuscript under review*.
- [11] **García-Callejas, D.**, Bartomeus, I., Godoy, O. The spatiotemporal mosaic of species coexistence. *Manuscript in preparation*.
- [12] **García-Callejas, D.** On the variability of Species Abundance Distributions with trophic guild and community structure. Preprint available: *biorXiv*, 289348 doi:10.1101/289348
- CONFERENCE TALKS
- [13] **García-Callejas, D.**, Molowny-Horas, R., Araújo, M.B., Gravel, D. Spatial cascades in networks connected by dispersal and foraging. In: *SIBECOL*, Barcelona, 04–07/02/2019.
- [14] **García-Callejas, D.**, Molowny-Horas, R., Araújo, M.B. Species persistence in networks with multiple interaction types. In: *NetSci conference*, Paris, 11–14/06/2018.
- [15] **García-Callejas, D.** The influence of trophic position on Species Abundance Distributions. In: *Ecology across borders*, Ghent, 11–14/12/2017.
- CONFERENCE POSTERS
- [16] Mestre, F., **García-Callejas, D.**, Pinto-Cruz, C., Matías, M., Araújo, M.B. Environmental correlates of food web structure. In: *9th biennial conference of the International Biogeography Society*, Málaga, 08–12/01/2019.
- [17] **García-Callejas, D.**, Molowny-Horas, R., Araújo, M.B. Multiple interactions networks: towards more realistic descriptions of the web of life. In: *Community Ecology for the 21st Century*, Évora, 17–19/10/2016. (Best poster award)

INVITED TALKS	<p>[18] García-Callejas, D., Molowny-Horas, R., Araújo, M.B. Multiple interactions networks in community ecology: towards more realistic representations of the web of life. In: <i>Centre for Advanced Studies</i>, Blanes, 10/01/2019.</p> <p>[19] García-Callejas, D., Molowny-Horas, R., Retana, J. Distribution and abundance of tree species: A spatially explicit model for Peninsular Spain. In: <i>Forest sciences centre of Catalonia</i>, Solsona, 10/12/2012.</p>
TEACHING EXPERIENCE	<p>Universidad de Huelva 2020</p> <ul style="list-style-type: none"> • Statistical Methods (M.Sc. in Biodiversity) - 5h <p>Universitat Autònoma de Barcelona 2015-2018</p> <p><i>Field/practical courses</i></p> <ul style="list-style-type: none"> • Ecology (B.S. in Environmental Sciences) - 62h • Ecology (B.S. in Biology) - 15h • Analysis and of environmental cartography (B.S. in Env. Biology) - 19h • Analysis and cartography of vegetation (B.S. in Biology) - 23h <p><i>Theoretical courses</i></p> <ul style="list-style-type: none"> • Statistics and environmental modelling (M.Sc. in Terrestrial Ecology) - 2h • Conservation Biology (B.S. in Env. Biology) - 12h • Forest Ecology (B.S. in Env. Biology) - 1h <p>CREAF 2018</p> <p><i>Seminar: Introduction to Latex and Zotero</i></p> <ul style="list-style-type: none"> • 5h in 2 sessions <p>Rui Nabeiro Biodiversity Chair 2013</p> <p><i>Course: Introduction to the R Language</i></p> <ul style="list-style-type: none"> • 12h in 3 sessions
AWARDS	<ul style="list-style-type: none"> • FPU Visiting researcher scholarship, 2017. Science and Education Ministry, Spain. • FPU Ph.D. scholarship programme, 2014–2018. Science and Education Ministry, Spain. • M.Sc. scholarship programme, 2011–2012. “Fundación Obra Social La Caixa”, Spain. • International scholarship programme, 2010. “Fundación Bancaja”, Spain.
LANGUAGES	<ul style="list-style-type: none"> • First Language: Spanish. • English: Proficient reading, speaking, writing. • Catalan: Proficient reading, basic speaking and writing. • Portuguese, Italian: Intermediate reading, basic speaking and writing.
SOFTWARE SKILLS	<ul style="list-style-type: none"> • Proficiency in R (statistical analyses, spatial and temporal analyses, data management and visualization, dynamic models, package development). • knowledge of Unix shell, software parallelization in HPC. • Intermediate user of C++. • Git user, expertise in Latex (e.g. developed an open template for Ph.D. thesis, available at https://github.com/garciacallejas/Thesis). • Familiarity with QGIS and open source graphics software (GIMP, InkScape).
REFeree SERVICE	<ul style="list-style-type: none"> • Reviewer for: Ecography (2), Global Ecology and Biogeography (2), Journal of Animal Ecology (1), Ecology and Evolution (1), Functional Ecology (1), Journal of Ecology (3), Journal of Environmental Informatics (1).
SELECTED MEDIA COVERAGE	<ul style="list-style-type: none"> • Biodiversity in Doñana (in Spanish): Interview in Youtube • News outlets on restoring species interactions (in Spanish): [1] [2] [3] [4] [5] [6]