CURRICULUM VITAE

CV date	10/12/2025

Part A. PERSONAL INFORMATION

First name	David		
Family name	García Callejas		
Gender	Male	**Birth date (dd/mm/yyyy)**	18/04/1984
ID number	31729479J		
e-mail	david.garcia.callejas@gmail.com	https://garciacallejas.github.io	
Open Researcher and Contributor ID (ORCID)		0000-0001-6982-476X	

A.1. Current position

Position	Researcher and lecturer
Initial date	01/01/2026
Institution	Universitat Autónoma de Barcelona
Department/Center	Department of Animal Biology, Plant Biology, and Ecology
Country	Spain
Key words	Community ecology, ecological networks, species interactions

A.2. Previous positions (research activity interruptions, see call)

Period	Position/Institution/Country/Interruption cause
10/2024-12/2025	PI and postdoctoral researcher - University of Graz
11/2021-06/2024	Postdoctoral researcher - University of Canterbury
02/2019-09/2021	Postdoctoral researcher - Estación Biológica de Doñana and Universidad de Cádiz
10/2014-12/2018	Predoctoral researcher - CREAF-UAB and Museo Nacional de Ciencias Naturales
03/2013-08/2014	Research Technician - CIBIO University of Évora
09/2012-02/2013	Research Technician - CREAF

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ph.D. in Terrestrial Ecology (*Summa Cum Laude*)	Universitat Autónoma de Barcelona (UAB), Spain	11/2018
M.Sc. in Terrestrial Ecology	Universitat Autónoma de Barcelona (UAB), Spain	09/2012
B.Sc. in Environmental Sciences	Universidad de Alcalá, Spain	06/2010
B.Sc. in Computer Science	Universidad de Granada, Spain	09/2006

Part B. CV SUMMARY

1. Scientific contributions

I am a community ecologist working on the interplay between theory and applied ecology. My research lines are rooted on the diversity of biotic interactions found in nature, how are they structured in space and time, and what is their role in shaping the stability and diversity of ecological communities. My academic formation includes a M.Sc. in Terrestrial Ecology in 2012 (UAB), 1.5 years as a research technician in 2013-14 (Univ. of Évora), and a Ph.D. in November 2018 (UAB, Summa Cum Laude and Extraordinary Doctorate Award). As a postdoc, I have worked at EBD-CSIC and Univ. of Cádiz (2019-2021), Univ. of Canterbury (New Zealand, 2021-2024), and leading my own 3-year research project at the University of Graz (Austria), a position that I terminated early due to my enrolment at the Autonomous University of Barcelona in January 2026 with a *Beatriz Galindo* distinguished researcher contract.

My research aims to understand the mechanisms by which species interactions drive emergent ecological properties. To highlight some key contributions, I have demonstrated empirically that the interactions we observe in natural communities are structured in specific

ways to maintain species coexistence, and that the diversity and spatial patterns of interactions are key elements for understanding biodiversity changes. In this line of research, I have developed standardised open software tools that have been widely adopted to measure coexistence outcomes, having been downloaded >12000 times since 2020. Overall, my work in integrating the diversity of biotic interactions across space and time is helping expand the breadth of modern community and metacommunity ecology. In addition to my main research line, I have contributed novel insights to the theory of Species Distribution Models and to demographic models and analyses. My scientific production includes 19 peer-reviewed articles + 6 more under review as of December 2025, with 12 as first and corresponding author, one as senior author, and 5 more as second author. These have been published in leading multidisciplinary (Nature Communications) and ecology journals (e.g. TREE, Ecology Letters, Global Change Biology, Methods in Ecology and Evolution), and have been cited >520 times (h-index: 13, i-index: 14; source Google Scholar).

During my career I have developed a strong set of multidisciplinary skills that allow me to tightly integrate robust ecological theory with experimental and observational approaches. I am proficient in advanced statistics, the use of programming languages for data management, high-performance computing, dynamical models, network analyses, the design of field campaigns; as well as general skills in mentoring, project design and management, or communication. I am a firm advocate of open and reproducible science, and all datasets and code from my first-author contributions are openly available.

I have been the single PI of an international 3-year project focused on understanding the variability of interaction outcomes between taxa, as well as the consequences for the predictability of ecological dynamics (project *HOROS*, 340k€). I have also been awarded a highly competitive grant from AEET aimed to demonstrate the leadership skills of early-career researchers, and have actively participated in 9 international projects with a total budget of >5M€. My network of collaborators has quickly expanded since my Ph.D., including >30 direct collaborators from 13 countries with highly diverse backgrounds and areas of expertise (e.g. in physics, physiology, or machine learning). I have held academic stays in the UK (2014), Canada (2017), and France (2021), besides my contracts in New Zealand and Austria. In parallel to my research, I have been an external project reviewer for the NSF in the USA, for the AEET in Spain, and have reviewed >40 articles for 19 journals, prioritising society-based ones.

2. Societal contributions

I have focused my contributions to society as a whole through teaching courses to the general public in the use of quantitative and reproducible approaches. In the courses that I have imparted over the years (>80h total), I have taught the basics of the R language, data analysis, statistics, and reproducible analyses, to >90 attendants from highly diverse backgrounds. I have produced 3 blog posts for general audiences about my research, one video summary, and my work has been disseminated by several news outlets and in video and radio interviews (e.g. Canal Sur radio).

3. Formative contributions

I place a high value in the formative duties of an academic career, to the point that I have held teaching duties in addition to my research positions: at UAB (2014-2018 and 2021-2024) and UHU (2019-2021). I have imparted >480h of official university teaching, including full courses in advanced statistics at the M.Sc. level (University of Huelva), design and writing of scientific articles (UAB), and fundamental ecology (UAB) at the B.Sc. level both in class and in the field. I have supervised 4 M.Sc. students, and I am currently co-supervising one Ph.D. student and in the process of securing funding for a second Ph.D student. My commitment to early-career researchers is expressed in the number of workshops imparted and in the organisation of two highly successful conferences: the 1st joint AEET-SFE2 online early-career conference (2021, >150 attendants), and the 1st Ecology Festival for early-career researchers (2022, >80 attendants). I am part of the monitoring committee of Ph.D. projects at UAB (3 students) and CONACYT Mexico (1 student). I am qualified as “Ayudante Doctor” and "Contratado Doctor" from ANECA, and as "Professor Lector" from AQU.

Part C. RELEVANT MERITS

C.1. Publications (* indicates corresponding author)

- **[P1] García-Callejas, D.*,** Godoy, O., Buche, L., Hurtado. M., Lanuza, José B., Allen-Perkins, A., Bartomeus, I. (2023). Non-random interactions within and across guilds shape the potential to coexist in multi-trophic ecological communities. Ecology Letters 26:831-842. DOI: 10.1111/ele.14206
- **[P2]** Allen-Perkins, A., **García-Callejas, D.**, Bartomeus, I., Godoy, O. (2023). Structural asymmetry in biotic interactions as a tool to understand and predict ecological persistence Ecology Letters 26:1647-1662. DOI: 10.1111/ele.14291
- **[P3] García-Callejas, D.***, Lavorel, S., Ovaskainen, O., Peltzer, D., Tylianakis, J.M. (2025). Species traits and landscape structure can drive scale-dependent propagation of effects in ecosystems. Nature Communications 16, 7998. DOI: 10.1038/s41467-025-63208-5
- **[P4]** Martins, L. P., **Garcia-Callejas, D.**, Lai, H.R., Wootton, K., Tylianakis, J. M. (2024). The propagation of disturbances in ecological networks. Trends in Ecology and Evolution, 39:558-570. DOI: 10.1016/j.tree.2024.01.009
- **[P5] García-Callejas, D.***, Bartomeus, I., Godoy, O. (2021) The spatial configuration of biotic interactions shapes coexistence-area relationships in an annual plant community. Nature Communications 12:6192. DOI: 10.1038/s41467-021-26487-2
- **[P6]** Taheri, S., **García-Callejas, D.**, Araújo, M.B. (2021) Discriminating climate, land-cover and random effects on species range dynamics. Global Change Biology 27:1309-1317. DOI: 10.1111/gcb.15483
- **[P7] García-Callejas, D.***, Godoy, O., Bartomeus, I. (2020). cxr: A toolbox for modelling species coexistence in R. Methods in Ecology and Evolution 11:1221-1226. DOI: 10.1111/2041-210X.13443. Associated R package: cxr
- **[P8] García-Callejas, D.***, Araújo, M.B., Molowny-Horas, R., Gravel, D. (2019) Spatial trophic cascades in communities connected by dispersal and foraging. Ecology 100:e02820. DOI: 10.1002/ecy.2820
- **[P9] 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
- **[P10] 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

C.2. Congresses

- [C1: Talk and session chair] García-Callejas, D. Talk: Species traits and community structure can drive scale-dependent propagation of effects in ecosystems; and chair of session: Bringing together theory and data to understand ecological communities. GfÖ 2024 Conference, Fresing (Germany), 9-12/09/2024.
- [C2: Invited Talk] García-Callejas, D. Análisis de dinámicas poblacionales en R. AEET Ecoinformatics group seminar (online), 06/06/2022.
- [C3: Workshop] García-Callejas, D., Domínguez-García, V. Taller de simulación de dinámicas poblacionales en R. I Festival de Ecología AEET. El Rocío (Spain), 19/05/2022.
- [C4: Workshop] García-Callejas, D. Optimizing the use of R for a reproducible science. King's College London (UK), 5-6/9/2022
- [C5: Workshop] García-Callejas, D..Managing your R code towards reproducibility. 27th DZG Graduate Meeting in Evolutionary Biology. Bielefeld (Germany), 1/4/2022.
- [C6: Invited Talk] García-Callejas, D. Towards Understanding how species coexist in complex ecological communities. EBD-CSIC Seminar program, Sevilla (Spain), 03/03/2022.
- [C7: Talk] García-Callejas, D., Godoy, O, Hurtado, M., Buche, L., Lanuza, J.B., Allen-Perkins, A., Bartomeus, I. Stability of multi-trophic communities: more than the sum of its parts. AEET 2021 Meeting, Plasencia (Spain), 20/10/2021.
- [C8: Talk] García-Callejas, D., Bartomeus, I., Godoy, O. Species-area relationships emerge from multiple coexistence mechanisms. BES 2020 Meeting (online), 14-18/12/2020.

- [C9: Talk] García-Callejas, D., Molowny-Horas, R., Araújo, M.B., Gravel, D. Spatial cascades in networks connected by dispersal and foraging. 1st SIBECOL Meeting (Barcelona), 06/02/2019.
- [C10: Talk] García-Callejas, D. The influence of trophic position on Species Abundance Distributions. Ecology across borders - BES-EEF Meeting, Ghent (Belgium) 11–14/12/2017.

C.3. Research projects

- [RP1] HOROS: Biotic interactions and ecological predictability. Funding: Austrian Science Fund. 340819€. Date: 01/10/2024 - 31/12/2025. Role: Principal Investigator.
- [RP2] NETMAP: Advancing the biogeography of ecological networks. Funding: AEET - Programa de becas para proyectos a jóvenes investigadores. 2500€. Date: 01/01/2021. Role: Principal Investigator.
- [RP3] Biological heritage National Science Challenge: propagation of ecological impacts. Funding: New Zealand Science Ministry. Date: 01/01/2021-31/12/2024. Role: Contracted postdoctoral researcher. PI: Jason Tylianakis - University of Canterbury.
- [RP4] TASTE: The effect of temporal variability of species interactions on the stability and functioning of ecosystems. Funding: MICINN. 190000€. Date: 01/01/2021-31/12/2023. Role: Work team member. PI: Oscar Godoy - Universidad de Cádiz.
- [RP5] MEDINAS: Mechanisms of maintenance of Biodiversity in variable environments. Funding: MICINN. 12000€. Date: 01/01/2020-31/12/2022. Role: Contracted postdoctoral researcher. PI: Oscar Godoy - Universidad de Cádiz.
- [RP6] SIMPLEX. Funding: MINECO. 36000€. Date: 01/01/2019-31/12/2019. Role: Contracted post-doctoral researcher. PI: I. Bartomeus - Estación Biológica de Doñana CSIC.
- [RP7] Puntos de inflexión en la organización de redes tróficas bajo el cambio climático. Funding: MICINN. 53361€. Date: 01/01/2016-31/12/2018. Role: Work team member. PI: Miguel B. Araújo - Museo Nacional de Ciencias Naturales, CSIC.
- [RP8] InAlentejo: Biodiversity Conservation in a Changing World. Funding: EU (FEDER). Date: 01/01/2013-31/12/2015. Role: Contracted research technician. PI: Miguel B. Araújo - Universidade de Évora.
- [RP9] CARBOSTOCK. Funding: MINECO. 150000€. Date: 01/01/2012-31/12/2014. Role: Contracted research technician. PI: Marc Gracia - CREAF.
- [RP10] MONTES Consolider. Funding: MICINN. 4000000€. Date: 01/01/2008-31/12/2013. Role: Contracted research technician. PI: Javier Retana - CREAF.

C.4. Contracts, technological or transfer merits

- **[T1 - Teaching course]** Introduction to R. Centro de Estudios Andaluces. 03/2022. 6h asynchronous online course.
- **[T2 - Teaching course]** Introduction to data analysis with R. Centro de Estudios Andaluces. 24/05/2022 - 07/06/2022. 12h 2-week course.
- **[T3 - Teaching course]** Reproducible analysis and reports with R and Rmarkdown. Centro de Estudios Andaluces. 3/11/2021 - 12/11/2021. 16h 2-week course.
- **[T4 - Teaching course]** Introduction to data analysis with R. Centro de Estudios Andaluces. 14/04/2021 - 28/04/2021. 16h 2-week course.
- **[T5 - Teaching course]** Reproducible analysis and reports with R and Rmarkdown. Centro de Estudios Andaluces. 10/12/2020 - 18/10/2020. 16h 2-week course.
- **[T6 - Teaching course]** Introduction to data analysis with R. Centro de Estudios Andaluces. 27/10/2020 - 5/11/2020. 16h 2-week course.