



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

CV date	01/01/2025
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Part A. PERSONAL INFORMATION

First name	Carlos		
Family name	Martínez Núñez		
Gender (*)	Male	Date of Birth (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	cmnunez@ujaen.es	Google Scholar: https://scholar.google.com/citations?user=MmbdMO4AAAAJ&hl=es	Personal web page: https://sciencefornature.com
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-7814-4985		

(*) Mandatory

A.1. Current position

Position	Postdoctoral Fellow (Junta de Andalucía Postdoctoral Fellowship)		
Initial date	01/02/2025		
Institution	Estación Biológica de Doñana (CSIC)		
Department/Centre	Department of Ecology and Evolution/ EBD(CSIC)		
Country	Spain/Seville	Phone number	
Keywords	Biodiversity; Conservation; Temporal trends; Pollinators; Birds		

A.2. Previous positions (arranged by starting date)

Period	Position/Institution/Country/Cause of the interruption		
12/06/2024 – 12/10/2024	Paternity leave		
10/04/2023 – 10/08/2023	Short-Term Postdoc Fellowship (JSPS) / Japan / End of stay (fellowship)		
01/12/2022 – 31/01/2025	Juan de la Cierva Fellowship/ EBD (CSIC)/ Spain/ Start current fellowship		
01/06/2021 – 30/11/2022	Postdoc/ Agroscope/ Switzerland/ Start in EBD (extension offered)		
26/09/2020 – 26/12/2020	Visiting Researcher/ University of Wageningen/ The NL/ End of stay		
11/12/2018 – 15/03/2019	Visiting Researcher/ University of Würzburg/ Germany/ End of stay		
01/05/2017 – 15/04/2021	PhD Student / University of Jaen / Spain / End of grant		
01/08/2016 – 28/04/2017	Researcher/ private Foundation (Matrix)/ Spain/ Ended work contract to start PhD at the University of Jaen (extension offered)		
20/12/2015 – 30/06/2016	Field Technician/ The Sloth Institute/ Costa Rica/ Ended work to start with a research position in a private Foundation (extension offered)		

A.3. Education

PhD, Graduate Degree	University/Country	Year
PhD	University of Jaen (Spain)	2021
Master	University of Granada (Spain)	2015
Degree	University of Granada (Spain)	2013



Part B. CV SUMMARY (max. 5000 characters, including spaces)

I am a **community ecologist** interested in understanding how **anthropogenic global change drivers** affect the spatio-temporal distribution and **conservation of species**, their interactions, and how these changes scale up to modify ecosystem properties, functions, or services, especially in agroecosystems. **I obtained a PhD ~4 years ago (April 2021) at the University of Jaen**, advised by Professor Dr. Pedro J. Rey. During my PhD, I studied the interacting effects of agricultural intensification and landscape complexity on biodiversity and ecosystem services in olive farms, and I **published 10 first-author scientific papers**. I did **two research stays** in two of the world's foremost research groups in my field, culminating in an **impactful publication with Prof. David Kleijn** (University of Wageningen, The Netherlands) and my **participation in a European project with Prof. Ingolf Steffan-Dewenter** (University of Würzburg, Germany). After a postdoctoral fellowship of 1.5 years (2021-2022) in a Federal Research Institution in Switzerland (Agroscope), I received a **highly competitive Juan de la Cierva Fellowship (2022-2024)**, working as a postdoctoral researcher at the Estación Biológica de Doñana (CSIC) in the renowned lab of Dr. Ignasi Bartomeus. Despite the small budget of my self-led Juan de la Cierva project, **I have led high-quality research in these 2 years**, publishing articles in prestigious journals such as *Nature Communications*, *Nature Sustainability*, *Conservation Biology*, *Proceedings B*, *Journal of Animal Ecology*, *Ecological Indicators*, and *Diversity and Distributions*. In addition, I am participating in international collaborative efforts like the **H2020 SHOWCASE** or **H2020 Safeguard projects** and the **Biodiversa+ ANTENNA project**, solidifying my role in major biodiversity conservation initiatives. I also **received a highly competitive JSPS Short-Term Fellowship to conduct research in Japan (2023)**, and I have just received a **Junta de Andalucía Postdoctoral Fellowship (2025-2028)** to keep conducting postdoctoral research at EBD (CSIC). This year, I have also been awarded a **"Consolidando la investigación" project grant** (double-blind evaluation) from the Spanish Association of Terrestrial Ecology (AEET).

Over the past five years, I have published 30 articles, including 16 as first or corresponding author and 10 more as second author, with 10 of these articles published in 2024 alone. Most of my papers as a first author were published in high-impact journals (first decile). My work has garnered increasing recognition, reflected by a **rapidly growing h-index of 14 (i10 = 16)** and an expanding citation count (currently ~500) that **increases exponentially yearly**. **I have presented five works at international conferences** (participated in 8 more as a co-author).

I serve as an **Associate Editor** in two respected journals, **Insect Conservation and Diversity (RES)** and **Ecological Solutions and Evidence (BES)**. I often **review manuscripts for journals** such as *Nature Communications*, *Global Change Biology*, *Journal of Applied Ecology*, *Proceedings B*, and many more. **I think that outreach activities are essential, and I am very active in this regard**. **I have coordinated and participated in stands at the European Night of Scientists**, written numerous **outreach articles** (e.g., *Quercus*) and **news about published papers** (many of them can be found online), and participated in radio and TV programs (e.g., "Canal Sur Noticias").

I am also the coordinator of the Early Career Researcher Commission in the AEET and participated actively in organizing several congress symposiums. **I have co-supervised a PhD student, supervised four Master's students, a JAEintro grantee at CSIC, and a graduate student.**

I am an **advanced R user**, and I believe in the **open sharing** of data, code, and ideas to stimulate the advancement of science.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (from recent to old). I am the first and corresponding author in all of them.

1.- Martínez-Núñez, C., Velado-Alonso, E., Avelino, J., [...] & Bartomeus, I. (2024). Tailored policies for perennial woody crops are crucial to advance Sustainable Development. *Nature Sustainability*. <https://doi.org/10.1038/s41893-024-01483-8>. (1/19 authors).

2.- Martínez-Núñez, C., Casanelles-Abella, J. Frey, D., Zanetta, A., Moretti, M. (2024). Local and landscape factors shape alpha and beta trophic interaction diversity in urban gardens. *Proceedings B*. 29120232501. <http://doi.org/10.1098/rspb.2023.2501>.



- 3.- **Martínez-Núñez, C., & Sakai, S.** (2024). Partitioning the contribution of bees with different traits and hoverflies to flower-visitor interaction networks. *Ecological Indicators*, 163, 112041. <https://doi.org/10.1016/j.ecolind.2024.112041>
- 4.- **Martínez-Núñez, C.,** Gossner, M.M., Maurer, C., Neff, F., Obrist, M.K., Bollmann, K., Herzog, F., Knop, E., Luka, H., Cahenzli, F., Albrecht, M. (2024). Land-use change in the past 40 years explains shifts in arthropod community traits. *Journal of Animal Ecology*, 00, 1–14. <https://doi.org/10.1111/1365-2656.14062>.
- 5.- **Martínez-Núñez, C.,** Martínez-Prentice, R. & García-Navas, V. Land-use diversity predicts regional bird taxonomic and functional richness worldwide. *Nature Communications*, 14, 1320 (2023). <https://doi.org/10.1038/s41467-023-37027-5>.
- 6.- **Martínez-Núñez, C.,** Kleijn, D., Ganuza, C., Heupink, D., Raemakers, I., Vertommen, W. & Fijen, T. P. (2022). Temporal and spatial heterogeneity of semi-natural habitat, but not crop diversity, is correlated with landscape pollinator richness. *Journal of Applied Ecology*, 59, 1258–1267. <https://doi.org/10.1111/1365-2664.14137>.
- 7.- **Martínez-Núñez, C.,** Rey, P. J., Manzaneda, A. J., Tarifa, R., Salido, T., Isla, J., ... Molina, J. L. (2020). Direct and indirect effects of agricultural practices, landscape complexity, and climate on insectivorous birds, pest abundance, and damage in olive groves. *Agriculture Ecosystems and Environment*, 304, 107145. <https://doi.org/10.1016/j.agee.2020.107145>.
- 8.- **Martínez-Núñez, C.,** Manzaneda, A. J., & Rey, P. J. (2020). Plant-solitary bee networks have stable cores but variable peripheries under differing agricultural management: Bioindicator nodes unveiled. *Ecological Indicators*, 115. <https://doi.org/10.1016/j.ecolind.2020.106422>.
- 9.- **Martínez-Núñez, C.,** Manzaneda, A.J., Isla, J., Tarifa, R., Calvo, G., Molina, J.L., Rey, P.J., (2020). Low-intensity management benefits solitary bees in olive groves. *Journal of Applied Ecology*, 57 (1), 111–120. <https://doi.org/10.1111/1365-2664.13511>.
- 10.- **Martínez-Núñez, C.,** Lendínez, S., Pérez, A. J., Ruiz-Valenzuela, L., & Rey, P. J. (2019). Interacting effects of landscape and management on plant-solitary bee networks in olive orchards. *Functional Ecology*, 1365-2435.13465. <https://doi.org/10.1111/1365-2435.13465>.

C.2. Congresses (from recent to old; 5 selected due to lack of space).

- 1.- 09/2023 Spain. Poster at the AEET national congress. Title: “Top-down and bottom-up regulation of bee communities.” Bartomeus I., García-Callejas D., Godoy O., **Martínez-Núñez C.**, Cano D.
- 2 and 3.- 08/2022 in the Czech Republic and 09/2022 in Switzerland. Oral presentations at international congresses (ECCB and INTECOL, respectively). Title: “Local and landscape drivers of long-term arthropod trends in Switzerland”. **Martínez-Núñez C.**, Neff F., Obrist M., Gossner M., Bollmann K., Herzog F., Knop E., Luka H., Cahenzli F., Albrecht M.
- 4.- 02/2019, Spain. Oral presentation at an international conference (SIBECOL). Title: “Differential effects of local and landscape environmental heterogeneity on properties of bipartite vs. tripartite networks in olive orchards”. **Martínez-Núñez C.**, Lendínez S., Pérez-Milla A., Valenzuela L., Rey P.J.
- 5.- 04/2018, Iceland. Oral presentation at an international conference (SER Europe). Title: “Landscape complexity moderates the efficiency of local management for restoring pollinator assemblages in olive groves”. **Martínez-Núñez C.**, Manzaneda A., Calvo G., Tarifa R., Isla J., Salido T., Rey P. J.



C.3. Research projects (*from recent to old starting date; 9 selected*)

1) DECODE (Asociación Española de Ecología Terrestre, AEET). Budget: € 4 000. Title: Decoding the role of floral cues in plant-pollinator interactions Date: 2025. Role: PI.

2) ANTENNA (Biodiversa +). Budget: € 1 500 000. Title: Making technology work for monitoring pollinators. Date: 2024-2027. Coordinator: Oliver Schweiger. Role: Postdoctoral fellow in the work team associated with WP2 and WP3.

3) TRAIT (JSPS Short Term Postdoctoral Fellowship; Grant ID: PE23014). Budget: € 11 000. Title: Trait-driven roles of Apidae and Syrphidae in plant-pollinator interaction networks. Date: 2023. Role: PI.

4) BIRDSCAPES (Juan de la Cierva, FJC2021-046829-I, MICIN, Gobierno España). Budget: €4 800. Title: Drivers of bird diversity across ecosystems and scales. Date: 2022-2024. Role: PI.

5) COMEVO (PID2021-123304NA-I00, MIN CIENCIA E INNOVACION). Budget: €48 000. Title: The ecological theatre and the evolutionary play: integrating ecological interactions and macroevolution in a community context. Date: 2021-2025. P.I: Vicente García-Navas. Role: Postdoctoral fellow in the work team.

6) SAFEGUARD SC5-32-2020; European Union 3.5.2. H2020. Budget: €7 850 403,75. Title: Safeguarding European wild pollinators. Date: 2021-2025. Coordinator: Ingolf Steffan-Dewenter (University of Würzburg, Germany). Role: Researcher associated with WP2 and WP3.

7) RECOVECOS (PID2019-108332GB-I00, MICIN, Gobierno de España and FEDER). Budget: ~ €180 000. Title: Recovering ecosystem services provided by the fauna in permanent croplands: effects of the land use intensification and landscape complexity in olive grove landscapes. Date: 2020-2024. P.I: Pedro J. Rey. Role: Postdoctoral fellow in the work team and co-supervisor of the PhD candidate.

8) AGRABIES (CGL2015-68963-C2, MINECO, Gobierno de España and FEDER; coordinated project); Budget: ~ € 230 000. Title: Filtros macroecológicos y antropogénicos sobre la biodiversidad animal en agroecosistemas arbóreos ibéricos: efectos multiescalados sobre funciones y servicios ecosistémicos; Date: 2016-2020. Coordinators: Pedro J. Rey (University of Jaen) & Daniel García (University of Oviedo). Role: PhD candidate associated to project (FPI).

9) LIFE OLIVARES VIVOS (LIFE14 NAT/ES/001094, European Commission). Budget: € 2 856 005. Title: Olives Alive. Date: 2015-2021. Coordinator: SEO/Birdlife Spain and Pedro J. Rey. Role: Researcher.

C.4. Technology/Knowledge transfer

My research often has important implications for the development of conservation strategies and policies, especially in the realm of sustainable agriculture. For instance, my PhD research contributed to the socioeconomic sustainability of olive oil production. In particular, it supported the development of the “Olives Alive” certification (<https://www.olivaresvivos.com/certificado/>), which identifies biodiversity-friendly, high-quality olive oil and enhances farmers’ profitability, similar to certifications like Rainforest Alliance for shade-grown cacao. Some of my publications also hold the potential for shaping international agricultural policies. For example, in a recent article published in *Nature Sustainability*, we highlight the urgent need for tailored policies to enhance the sustainability of perennial woody crops worldwide. Building on this work, we are preparing a policy brief as part of the H2020 SHOWCASE project to maximize its political impact. Lastly, I collaborated with the Andalusian Government to evaluate the pollination ecosystem service in Andalusia, generating knowledge to inform regional conservation policies (<https://zenodo.org/records/11530784>).