

Daniel Sánchez-García

PHD IN BIOLOGY

Museum and Institute of Zoology PAS, Warsaw (Poland)

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Professional experience

Specialist in ant species identification

DOÑANA BIOLOGICAL STATION (EBD-CSIC), DEPARTMENT OF CONSERVATION BIOLOGY AND GLOBAL CHANGE, SEVILLE (SPAIN)

May 2024 - Jun 2024

Identification of ant species from pitfall trap samples from Spain, France, Belgium and the Netherlands, contributing to ecological research and biodiversity
assessments through taxonomic expertise.

<u>m</u> Education

PhD in Biology

MUSEUM AND INSTITUTE OF ZOOLOGY, WARSAW (POLAND)

Oct 2019 - Sep 2024

• PhD Thesis: The project aimed to get a better understanding of how reintroductions of parasites work, we performed a multi-level comparison of source and reintroduced populations of Phengaris teleius by studying 1) population genetics, 2) morphology of adult butterflies and 3) behavioural, chemical and acoustical adaptations of butterfly caterpillar to the Myrmica host ants.

Master of Biodiversity and Conservation Biology

UNIVERSIDAD PABLO DE OLAVIDE, SEVILLA (SPAIN)

Oct 2017 - Jul 2018

• MSc Thesis (Thesis grade: 9.8 - Honors with Distinction; Overall degree grade: 9.11): The work aimed to study the effect of temperature over ant assemblages from different habitats, applying different ecological perspectives. Taxonomic and functional diversity were studied, and a new index was developed to study the direct effect of temperature over the interspecific competition.

Degree of Biology

UNIVERSITAT DE VALÈNCIA, VALENCIA (SPAIN)

Sep 2012 - Sep 2016

• BSc thesis (Thesis grade: 9.5; Overall degree grade: 7.83): The work aimed to provide new knowledge about the ant communities of Sierra de Javalambre. The main goals were: 1) study how ant species are distributed along the altitudinal gradient, studying variables like ground temperature, nest density and stone density; 2) study the patching effect of Juniperus sabina over ant activity and nesting areas.

Research stays _

2. Prof. Luca Pietro Casacci

University of Turin, Department of Life Sciences and Systems Biology, Turin (Italy)

Oct 2021

• I received training in recording insect vibroacoustic signals, sonogram analysis and performing behavioral assays, which enhanced my skills in experimental design and data interpretation.

1. Prof. Patrizia d'Ettorre

SORBONNE PARIS NORTH UNIVERSITY, LABORATORY OF EXPERIMENTAL AND COMPARATIVE ETHOLOGY, PARIS (FRANCE)

Jan 2020 - Feb 2020

 I received training in CG-MS analysis of cuticular hydrocarbons and bioinformatics workflows, which deepened my understanding of chemical communication in social insects and enhanced my analytical skills.



Scientific assistant

Valencian Institute of Agricultural Research (IVIA), Department of Entomology, Valencia (Spain)

Feb 2016 - May 2016

• Internship with the researcher Alejandro Tena working on a biological control applied study about the effect of the presence of the ant Lasius grandis on the behaviour of the parasitoid wasp Anagyrus pseudoccoci on mealybug colonies of Planoccocus citri (pest of citrus).

Environmental manager

AGRICULTURAL, STOCKBREEDING AND ENVIRONMENTAL PUBLIC SERVICE (DIPUTACIÓN GENERAL DE ARAGÓN), TERUEL (SPAIN)

Jul 2015 - Sep 2015

• Internship with the environmental manager José Manuel González working on environmental impact reports; monitoring of fish river population dynamic for its management and conservation using electric fishing techniques; monitoring of deer population dynamic for its management and conservation in the Hunting Nacional Reserve "Montes Universales"; management and translocation of native plant species.

Publications.

Also in my Google Scholar profile and available to download from my Website.

- **Sánchez-García, D.**, Wynhoff, I., Kajzer-Bonk, J., Sztencel-Jablonka, A., Nowicki, P., Casacci, L. P., & Witek, M. (2024). Temporal and spatial variation of morphological traits and genetic structure in Phengaris teleius myrmecophilous butterflies following habitat and climate changes three decades after reintroduction. *Global Ecology and Conservation*, *54*, e03104. https://doi.org/10.1016/j.gecco.2024.e03104
- Trigos-Peral, G., Maák, I. E., Schmid, S., Chudzik, P., Czaczkes, T. J., Witek, M., Casacci, L. P., **Sánchez-García, D.**, Lorincz, Á., Kochanowski, M., & Heinze, J. (2024). Urban abiotic stressors drive changes in the foraging activity and colony growth of the black garden ant Lasius niger. *Science of the Total Environment*, 915, 170157. https://doi.org/10.1016/j.scitotenv.2024.170157
- **Sánchez-García**, **D.**, Cerdá, X., & Angulo, E. (2022). Temperature or competition: Which has more influence on Mediterranean ant communities? *PLoS ONE*, *17*(4 April), 1–16. https://doi.org/10.1371/journal.pone. 0267547
- Angulo Aguado, E., Castro Cobo, S., **Sánchez-García, D.**, Sergio, F., Reyes-López, J. L., Álvarez Blanco, P., & Cerdá Sureda, X. (2019). ¿Se podrá controlar la expansión de la invasora hormiga argentina en Doñana? In J. Junoy (Ed.), *Especies exóticas invasoras: Catedra de parques nacionales* (pp. 249–262). Editorial Universidad de Alcalá.
- García, F., Cuesta-Segura, A. D., Espadaler, X., García, J. C., & **Sánchez-García, D.** (2019). Lasius piliferus Seifert, 1992: descripción de la reina y actualización de su distribución ibérica (Hymenoptera: Formicidae). *Boletín de La Sociedad Entomológica Aragonesa (S.E.A.)*, 65, 39–44.
- García García, F., Espadaler Gelabert, X., Cuesta-Segura, A. D., & **Sánchez-García**, **D.** (2018). Primera cita ibérica para Temnothorax conatensis Galkowski & Lebas, 2016, y actualización de la distribución para Temnothorax grouvellei (bondroit, 1918) (Hymenoptera: Formicidae). *Iberomyrmex*, 10, 22–27.
- Espadaler, X., **Sánchez-García, D.**, & García-García, F. (2017). Temnothorax ibericus Menozzi (1922), un endemismo ibérico orófilo (Hymenoptera, Formicidae). *Iberomyrmex*, 9, 5–9.
- **Sánchez-García, D.**, & Espadaler, X. (2017). Una nueva especie parásita social para la península ibérica. Bothriomyrmex communista Santschi, 1919 (Hymenoptera: Formicidae) en España. *Iberomyrmex*, 9, 11–13.
- **Sánchez-García, D.**, & Espadaler, X. (2015). Cardiocondyla obscurior Wheeler, 1929 (Hymenoptera, Formicidae) en España. *Iberomyrmex*, 7, 7–9.

Conference talks and posters

- **Sánchez-García, D.**, Cerdá, X., & Angulo, E. (2024). Modificación del hábitat como herramienta de control de la invasión de la hormiga argentina. *XVIII International Congress of Myrmecology. Taxomara 2024*, *Malaga*, Spain (Talk).
- Sánchez-García, D., Cerdá, X., & Angulo, E. (2024). Recovering native ant communities by removing suitable con-

ditions for the invasive Argentine ant. IV International Young Researchers Conference on Invasive Species. lyrCIS, Online (Talk).

- **Sánchez-García, D.**, Casacci, L. P., Wynhoff, I., Kajzer-Bonk, J., Sztencel-Jablonka, A., Nowicki, P., & Witek, M. (2023). Changes in morphology and genetic structure in two populations of Phengaris (=Maculinea) teleius 30 years after separation. *Butterfly Conservation Symposium 2023, Wyboston*, England (Talk).
- **Sánchez-García, D.**, Casacci, L. P., Wynhoff, I., Kajzer-Bonk, J., Nowicki, P., & Witek, M. (2022). Short-time evolution in the morphology of the myrmecophilous Maculinea teleius butterfly. 8th Polish Evolutionary Conference 2022, Τοτμή, Poland (Talk).
- **Sánchez-García**, **D.** (2019). Fotografía de insectos: material, técnicas y aplicaciones. *XIV International Congress of Myrmecology. Taxomara 2019*, *Chefchaoue*, Morocco (Talk).
- **Sánchez-García, D.**, Cerdá, X., & Angulo, E. (2018). ¿Temperatura o competencia, qué afecta más a las hormigas de Doñana? *XIII Iberian Congress of Myrmecology. Taxomara 2018, León*, Spain (Talk).
- **Sánchez-García, D.**, Cuesta-Segura, A. D., Herraiz, J. A., Trigos-Peral, G., García García, F., Catarineu, C., Arcos González, J., & Fernández Martínez, J. A. (2017). Listado actualizado de las hormigas de la península ibérica e islas Baleares (Hymenoptera: Formicidae). *XII Iberian Congress of Myrmecology. Taxomara 2017, Madrid*, Spain (Poster).
- **Sánchez-García, D.** (2016). Aspectos ecológicos sobre la mirmecocenosis de solana de la Sierra de Javalambre (Teruel). *XI Iberian Congress of Myrmecology. Taxomara 2016, Murcia*, Spain (Talk).

6 Funding

PRELUDIUM grant 2021/41/N/NZ8/04360 (NCN, Poland). Bacteria – ant – plant

2022 - 2025 interaction: the effect of ants as bacteria dispersal vectors and indirect drivers of

plant health.

202.001 pln; aprox. 46.000 eur

Organizing Committee and

Organization of Conferences and Scientific Events

Scientific Committee	XVI International Conference of Myrmecology, Taxomara 2021	2021
Organizing Committee and	XV International Conference of Myrmecology, Taxomara 2020	2020
Scientific Committee	AV IIIternational Conference of Myrmecology, Taxoniara 2020	

Reviews _____

Manuscripts reviewed for: Plant-Arthropod Interactions (1), Polish Journal of Ecology (1), Insect Conservation and Diversity (1)

2 Courses

2019 Advanced University Course in Ecological Network Analysis.

2018 Animal Tracking Course

Memberships

since 2012 Iberian Asociation of Myrmecology &





Coding Languages	general R packages	Other
R	markdown – ggplot2 – geomorph –	GCMS – morphometrics – network
	vegan	analysis – genetics – ant taxonomy

Skill	Spanish	English
Reading	Native	B2
Writing	Native	B2
Listening	Native	B2
Speaking	Native	B2

Common European Framework of Reference for Languages: A1/A2: Basic User. B1/B2: Independent User. C1/C2: Proficient User

References

- **Dra. Magdalena Witek**, Museum and Institute of Zoology, PAS, Warsaw (Poland) **™** mawitus@yahoo.co.uk
- Dr. Xim Cerdá, Doñana Biological Station, Seville (Spain) xim@ebd.csic.es
- **Prof. Dr. Ximo Baixeras** University of Valencia, Valencia (Spain) **□** joaquin.baixeras@uv.es