

Part A. PERSONAL INFORMATION

CV date	11/03/2023
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First and Family name	PABLO J. GARCIA MURILLO		
Social Security, Passport, ID number		Age	
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0002-1761-9569	
	SCOPUS Author ID (*)	6507028982	
	WoS Researcher ID (*)	L-7188-2014	

A.1. Current position

Name of University/Institution	UNIVERSITY OF SEVILLE (UNIVERSIDAD DE SEVILLA)		
Department	PLANT BIOLOGY AND ECOLOGY/FACULTY OF PHARMACY		
Address and Country	C/ PROF. GARCIA GONZALEZ Nº 2. 41012 SEVILLA. SPAIN		
Phone number		E-mail	pgarcia@us.es
Current position	TENURED PROFESSOR (PROFESOR TUTULAR)	From	26/03/1993
Key words	plant conservation, plant taxonomy, aquatic plants, aquatic invasive plants, ecological restoration, landscape ecology, flora, vegetation,		

A.2. Education

PhD, Licensed, Graduate	University	Year
Licensed (5 years)	UNIVERSITY OF SEVILLE	1982
PhD	UNIVERSITY OF SEVILLE	1989

A.3. General indicators of quality of scientific production (see instructions)

Number of recognized periods of research activity ("sexennial"): 5

Number of doctoral theses supervised: 3

1 paper published in Science (2019)

Publications in the first quartile (JCR) in the last 5 years: 8

Total citations: 3794 (source Google Scholar)

Number of citations during the last 5 years: 989 (source Google Scholar)

Index H: 25 (source Google Scholar)

Other identifiers: Google Scholar: QRpcnwkAAAA, Dialnet: 202518

Research Gate: https://www.researchgate.net/profile/Pablo_Garcia_Murillo. Research

Interest Score: 1,294

Part B. CV SUMMARY (max. 3500 characters, including spaces)

Summary of scientific activity: 238 scientific publications, participation in 18 R&D projects financed by competitive calls for proposals by state or European administrations.

Participation

in 17 applied research projects financed by state or regional administrations or private companies. Participation as an expert in 6 Scientific Committees of Public Administrations and other entities. Participation in the organisation of 4 Scientific Conferences. Participation in the management of 17 R&D activities.

Main scientific fields

#CONSERVATION. Author of numerous works about plant conservation. I have especially worked on the need to include aquatic species, normally ignored, in laws, red lists, and catalogues of threatened species; author of four proposals accepted for the Spanish State Catalogue of Threatened Species. Co-author of the Red List of Spanish Vascular Flora and author of several species monographs in various Red Books. I have directed and participated in projects to develop the lines for the conservation of several of them, in regional and country contexts. In this sense. Likewise, as a consequence of my work and experience, I am an EXPERT in Global Species Programme for IUCN's Red List of Threatened Species. IUCN, the world's leading authority on conservation, with whom I have served as advisor, evaluator,



reviewer, and author of several proposals and species monographs (57), working uninterruptedly since 2009 and I continue.

#INVASIVE SPECIES. I published the first record of *Nymphaea mexicana* in Europe (a species that today produces important troubles in Extremadura (W Spain) and I also was the first to publish news about the invasion of *Azolla filiculoides* in Doñana National Park. (whose study was part of a thesis I directed) or the presence of *Pistia stratiotes* in the vicinity of Doñana. Likewise, I have collaborated with some Spanish administrations in the design of the tasks for the control of invasive aquatic plants and, through several projects, I have worked on different aspects of the biology and ecology of invasive aquatic plants. Recently I participate in the LIFE INVASAQUA project, financed by the European Union, which seeks to control invasive alien species in freshwater ecosystems and estuaries in the Iberian Peninsula.

#ECOLOGICAL HISTORY. From the project: Ecological Restoration of the Abalarío (Natural Park of Doñana), I worked with historical documents, an unusual information for botanists. This was a revelation and led to a doctoral thesis on changes that had occurred in the last 200 years in the MEL wetlands of Doñana protected area. In this study, data on the plant elements were combined with the geomorphology of the evolution of the territory and historical documentation. The main result was to relate the disappearance of wetlands in the study area to the end of the Small Ice Age. This thesis, completed in 2004, was awarded as the best doctoral thesis of the biennium by the Iberian Association of Limnology, and has allowed the development of numerous prestigious publications. Similarly, I have participated in the notorious ecological restoration project DOÑANA 2005, as responsible for the flora and vegetation team. In this sense, I highlight my participation as an expert in the Technical Scientific Committee (Andalusian Regional Government) to develop action proposals in relation to the restoration after the Doñana wildfire in 2017.

#TAXONOMY. My beginnings. The main results are the biosystematic study of genus *Zannichellia*, which led to a new species for science, widely distributed in the temporary wetlands from the W Mediterranean; I also underline the my studies on genus *Althenia*, *Ruppia* and *Potamogeton*, for introducing criteria anatomical, cariological, and palynological to the complex taxonomy of these plants, which brought with them a more natural arrangement of these groups. These studies continued with the phylogeny of some of these genera, which were published not long ago. Also, I participated in the macro project "Flora Ibérica", with the elaboration of the aquatic genera: *Callitriche*, *Potamogeton*, *Groenlandia*, *Ruppia*, *Zannichellia* and *Althenia*, and also some of the terrestrial ones: *Calycotome* and *Galega*.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

BOOKS

1. Cirujano, S.; Guerrero Maldonado, N. & García Murillo, P. (2020) Flora Acuática Española. Helófitos. Real Jardín Botánico. CSIC. Madrid. 232 pp. ISBN: 978-84-09-19346-2.
2. Rivers, M et al (13/36) (2019) European Red List of Trees. IUCN Cambridge, UK and Brussels, Belgium. 60pp+ mapas. ISBN 978-2-8317-1985-6.
3. García Murillo, P (2018) El incendio de Las Peñuelas de 2017. In García Novo, Casal & Pausas (Eds.) Ecología de la regeneración de zonas incendiadas. Academia de Ciencias Sociales y del Medio Ambiente de Andalucía. Sevilla. ISBN 978-84-09-05946-1. Pag. 175-195.
4. Sancho, F., Fernández-Palacios, J.M., García Murillo, P., Espina, J., Olmedo, F., Estévez, A. (2018) El Abalarío. Un paisaje en construcción. Consejería de Medio Ambiente y Ordenación del Territorio. Junta de Andalucía. Sevilla. ISBN 978-84-16591-06-0.
5. García Murillo, P. & Fernández-Zamudio, R. (2015) Las plantas de las lagunas temporales de Doñana. In Díaz-Paniagua, C. (Coord.) El sistema de lagunas temporales de Doñana. Una red de hábitats acuáticos singulares. Organismo Autónomo Parques Nacionales. Ministerio de Agricultura, Alimentación y Medio Ambiente. Madrid. Pp. 119-147. ISBN 978-84-8014-880-1.
6. Cirujano, S., Meco, A. & García Murillo, P. (2014) Flora acuática española. Hidrófitos vasculares. Real Jardín Botánico (CSIC). Madrid. 320 pp. ISBN 978-84-616-8681-0.

JCR SCIENTIFIC JOURNALS

1. Oficialdegui, F. J., Zamora-Marín, J. M., Guareschi, S., Anastácio, P. M., García-Murillo, P., Ribeiro, F., ... & Oliva-Paterna, F. J. (2023). A horizon scan exercise for aquatic

- invasive alien species in Iberian inland waters. Science of the Total Environment, 869, 161798. **JCR Index: 10.754, Q1 26/279 Environmental Sciences.**
2. Fernández Zamudio, R., García Murillo, P., Díaz Paniagua, C. (2021). Terrestrial Morphotypes of Aquatic Plants Display Improved Seed Germination to Deal with Dry or Low-Rainfall Periods. Plants. 10 (4) pp. 741. **JCR Index: 3.935, Q1 47/235 Plant Sciences.**
 3. Rodríguez Merino, A., García Murillo P. & Fernández Zamudio, R. (2020) Combining multicriteria decision analysis and GIS to assess vulnerability within a protected area: An objective methodology for managing complex and fragile systems. Ecological Indicators 108: 105738. **JCR Index: 4,490, Q1 45/251 Environmental Science (miscellaneous).**
 4. Leverkus, AB, García Murillo, P, Jurado, V & Pausas, JG (2019) Wildfires: Opportunity forrestoration? Science 363, Issue 6423: 134-135. **JCR Index: 41.845, Q1 2/71 Multidisciplinary Sciences.**
 5. Rodríguez-Merino, A, Fernández-Zamudio, R & Garcia-Murillo, P (2019). Identifying areas of aquatic plant richness in a Mediterranean hotspot to improve the conservation of freshwater ecosystems. Aquatic Conservation: Marine and Freshwater Ecosystems 29(4): 589-602. **JCR Index: 2.572, Q1 18/106 Marine & Freshwater Biology.**
 6. Rodríguez-Merino, A, Fernández-Zamudio, R & Garcia-Murillo, P & Muñoz, J (2019). Climatic Niche Shift during *Azolla filiculoides* Invasion and Its Potential Distribution under Future Scenarios. Plants 8: 424-. **JCR Index: 2.762, Q1 58/234 Plant Sciences.**
 7. Manzano; S, Carrión, J.S., García-Murillo, P & López-Merino, L (2018). When dynamism is the baseline:long-term ecology of a Mediterranean seasonal wetland in the Doñana National Park (Southwestern Europe) Biodiversity & Conservation 28: 1-22. **JCR Index: 3.149, Q1 10/59 Biodiversity Conservation.**
 8. Rodriguez-Merino, A, Garcia-Murillo, P, Cirujano, S & Fernández-Zamudio, R (2018). Predicting the risk of aquatic plant invasions in Europe: How climatic factors and anthropogenic activity influence potential species distributions Journal for Nature Conservation 45: 58-71. **JCR Index: 2.289, Q2 22/59 Biodiversity Conservation.**
 9. Ito, Y, Tanaka, N, Sanchez Barfod, A, Kaul, R, Muthama Muasya, A, Garcia-Murillo, P, Albach, D. (2017) From terrestrial to aquatic habitats and back again: molecular insights into the evolution and phylogeny of *Callitriche*(Plantaginaceae). Bot. J. Linnean Soc. 184: 46-58. **JCR Index: 3.124, Q1 32/223 Plant Sciences.**
 10. Ito, Y, Tanaka, N., García Murillo, P & Muasya, M (2016). A new delimitation of the Afro-Eurasian plant genus *Althenia* to include its Australasian relative, *Lepilaena* (Potamogetonaceae)—Evidence from DNA and morphological data. Molecular Phylogenetics and Evolution 98: 261-270. **JCR Index: 4.419, Q1 10/48 Genetics and Molecular Biology.**

C.2. Research projects

1. DEVELOPING STRATEGIES FOR THE PROTECTION OF TAXA CONSISTING OF INTERCONNECTED SEXUAL AND PARTHENOGENETIC REPRODUCING STRAINS. Biodiversa+ European Biodiversity Partnership (PCI2022-134971-2). IP: Pablo García Murillo. Universidad de Sevilla.01/12/2022-30/11/2025. Project amount: 9348 €. Main Researcher.
2. IMPACTO DE LAS TENDENCIAS DE DESECACION SOBRE LA BIODIVERSIDAD DE HABITATS ACUATICOS SINGULARES. PID2019-104343RB-I00. Ministerio de Ciencia e Innovación. Conv. 2019. IP: Camen Díaz Paniagua. Estación Biológica de Doñana (CSIC). 01/06/2020- 01/06/2023. Project amount: 182.767 €. Researcher.
3. PLASTICIDAD EN EL DESARROLLO DE LARVAS DE ANFIBIOS:MECANISMOS Y CONSECUENCIAS ECOLÓGICAS. CGL2012-40044. Ministerio de Economía y Competitividad. Conv. 2012. IP: Iván Gómez Mestre. Estación Biológica de Doñana.(CSIC).23/11/2012.23/12/2014. Project amount: 71.000 €. Researcher.
4. RESILIENCIA Y UMBRALES DE VULNERABILIDAD DE LA VEGETACIÓN EN DOS TERRITORIOS IBÉRICOS DE ALTA DIVERSIDAD BIOLÓGICA Y FISIOGRAFICA: DOÑANA Y SIERRA NEVADA. . 261/2011. Ministerio de Medio Ambiente, y Medio Rural y Marino. Conv. 2011. IP: José Sebastián Carrión García. Universidad de Murcia. 01/01/2012-31/12/2014. Project amount: 115.000 €. Researcher.



5. VALORACIÓN DEL SISTEMA DE LAGUNAS TEMPORALES DEL PARQUE NACIONAL DE DOÑANA: APLICACIÓN A LA GESTIÓN Y CONSERVACIÓN DE HÁBITATS ACUÁTICOS SINGULARES. 158/2010. Ministerio de Medio Ambiente, y Medio Rural y Marino. Conv. 2010. IP: Camen Díaz Paniagua. Estación Biológica de Doñana (CSIC).01/01/2011-31/12/2013. Project amount: 87.272,35 €. Researcher.
6. RECONSTRUCCION HISTORICA MEDIANTE TELEDETECCION DE LA DINAMICA HIDRICA Y DE LAS COMUNIDADES DE VEGETACION ACUATICA DE LAS MARISMAS DE DOÑANA. CGL2009-09801. Ministerio de Ciencia e Innovación. Conv. 2009. IP: Javier Bustamante Díaz. Estación Biológica de Doñana (CSIC). 01/01/2010-31/12/2012. Project amount: 176.660 €. Researcher.

C.3. Contracts, technological or transfer merits

1. EVALUACIONES EICAT DE 3 ESPECIES DE PLANTAS ACUATICAS INVASORAS DE AGUA DULCE. (UICN) Unión Internacional para la Conservación de la Naturaleza. IP: Pablo García Murillo. Universidad de Sevilla. 01/01/2022-31/10/2022. Amount: 1549 €. Main Researcher.
2. SEGUIMIENTO Y ESTUDIO DE CINCO ESPECIES DE FLORA AMENAZADAS Y DE PROTECCIÓN ESPECIAL EN ESPAÑA, PARA EL ATLAS DE FLORA AMENAZADA DE ESPAÑA. Sociedad Española de Biología de Conservación de las Plantas (SEBICOP). IP: Pablo García Murillo. Universidad de Sevilla. 15/09/2016-5/12/2017. Amount: 10900€. Main Researcher.
3. CONTRATO ESPECÍFICO: REVISIÓN DE INCOHERENCIAS ENTRE COBERTURAS Y ESPECIES DEL SISTEMA DE INFORMACIÓN SOBRE EL PATRIMONIO NATURAL DE ANDALUCÍA (SIPNA) DE LA ZONA 1. Agencia de Medio Ambiente y del Agua de Andalucía. IP: Pablo García Murillo. Universidad de Sevilla.20/11/2012-20/12/2013. Amount: 1950 €. Main Researcher.
4. ANÁLISIS DE LOS HABITATS DEL GRUPO 3, NO CORRESPONDIENTES CON AMBIENTES RIPARIOS, DEL ANEXO 1 DE LA DIRECTIVA 92/43/CEE . Agencia de Medio Ambiente y del Agua de Andalucía. IP: Pablo García Murillo. Universidad de Sevilla. 01/12/2012-01/06/2013. Amount: 3000 €. Main Researcher.
5. ELABORACIÓN DE LAS CARTOGRAFÍAS ÚNICAS DE LOS HABITATS DE INTERÉS COMUNITARIO 3160 LAGOS Y ESTANQUES DISTRÓFICOS Y 3170 LAGOS Y LAGUNAS KÁRSTICAS SOBRE YESOS. Agencia de Medio Ambiente y del Agua de Andalucía. IP: Pablo García Murillo. Universidad de Sevilla. 01/11/2012-01/04/2013. Amount: 7500 €. Main Researcher.
6. CONSULTAS CON EXPERTOS ACREDITADOS PARA LA RESOLUCIÓN DE LOS PROBLEMAS DE INTERPRETACIÓN SOBRE LOS HABITATS DE INTERÉS COMUNITARIO 3110, 3140, 3150, 3160, 3170 Y 3190. Agencia de Medio Ambiente y del Agua de Andalucía. IP: Pablo García Murillo. Universidad de Sevilla.23/08/2012-31/10/2012. Amount: 2600 €. Main Researcher.

C.4. Patents

C.5. Other merits

1. Member of the Scientific Commission of the Spanish Ministry of Ecological Transition, in charge of the management at the state level: List of Wild Species under Special Protection Regime, Spanish Catalogue of Threatened Species and Spanish Catalogue of Invasive Alien Species. 2021-current
2. Evaluator, reviewer and advisor in Lista Vermelha da Flora Vasculare de Portugal Continental. A Project from Sociedade Portuguesa de Botânica (SPBotânica), founded by European Union (POSEUR-03-2215-FC-000013).). 2018-2019.
3. Member of Editorial Board. PLANTS (ISSN 2223-7747)- Impact Factor of 2,762 (2019), JCR. Plants ranks 59/234 (Q1) titles in PLANT SCIENCE. Fecha 06/12/2018-currently.
4. Evaluator in the Andalusian Agency for Quality Assessment (DEVA). Act: Evaluator of the Master's Programme at RUDN University in Moscow (Russia): INTEGRATED PLANT PROTECTION MASTER'S DEGREE. 2018.
5. Research Project Evaluator. Spanish National Evaluation and Prospective Agency (ANEP).



6. Member of the Scientific and Technical Committee for the restoration of the area affected by the 2017 Doñana wildfire. Andalusian Regional Government (Junta de Andalucía): 2017-2018.
7. Member of the Global Species Programme Expert Group for the Red List of Threatened Species. International Union for Conservation of Nature (IUCN). Act: I have taken part, as evaluator, reviewer and advisor, in: Mediterranean Red List of Freshwater Plants, Mediterranean Red List of Monocotyledons, European Red List of Freshwater Plants, European Red List of Trees, Key Biodiversity Areas (KBA) and Environmental Impact Classification of Alien Taxa (EICAT). 2009-current.
8. RESEARCH GROUPS OF THE GOVERNMENT OF ANDALUSIA. Act: Main research PLACCA Group (RNM 116). 2007-current.