

CV date	16/10/2019
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Part A. PERSONAL INFORMATION

First and Family name	GERARDO MORENO MARCOS		
Social Security, Passport, ID number	ID: 11768169-N	Age	54
Researcher codes	WoS Researcher ID (*)	K-7825-2012	
	SCOPUS Author ID(*)	20734998800	
	Open Researcher and Contributor ID (ORCID) **	0000-0001-8053-2696	

(*) At least one of these is mandatory

(**) Mandatory

A.1. Current position

Name of University/Institution	UNIVERSITY OF EXTREMADURA		
Department	PLANT BIOLOGY, ECOLOGY AND EARTH SCIENCE		
Address and Country	CENTRO UNIVERSITARIO, PLASENCIA 10600, SPAIN		
Phone number	0034669452519	E-mail	gmoreno@unex.es
Current position	ASSOCIATED PROFESSOR	From	2008
Key words	Agroforestry system, Dehesa, Soil-plant relations, Root systems, Soil water, Nutrient uptake, Soil Carbon, Ecosystem services		

A.2. Education

Academic Degree	University	Year
PhD Biological Science	SALAMANCA	1994
M.Sc. (eq.) Biological Sciences	SALAMANCA	1992
B.S. Biological Science	SALAMANCA	1999

A.3. JCR articles, h Index, thesis supervised...

4 Research periods (6 years each) with positive evaluation (last approved 2009-2014)

4 PhD supervised in the last 10 years (2 in course)

108 peer-review papers in total, 80 of them published since 2009.

76 peer-review are ranked in the Q1, 55 of them published since 2009

Number of citations in the last 5 years (2014-2018): 152-177-200-233-425

h-index: 28 (Data based on Web of Science de Thomson Reuters)

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

Dr. Gerardo Moreno, PhD in Biology, teaches Agrochemistry, Soil Science and Ecosystem Services at the Forestry School of the University of Extremadura. He belongs to the INDEHESA Unit (Institute of Research for Dehesa and Silvopastoralism) of this university. After his formation on Forest Biogeochemistry in Salamanca (IRNA-CSIF; 2000-2004) and France (CEFE-CNRS, Montpellier; 2005-2006), and a 3-years break in his scientific career for family issues, he started to work in the University of Extremadura in 1999, initially as assistant professor and since 2008 as associated professor.

He is specialist in agroforestry science, soil-plant relationships and the dynamic and management of soil resources (water and nutrients), with long experience (~) on the study of the functioning and management of agroforestry systems (wood pasture and silvopastoral systems) and strategies for the mitigation and adaptation to climate change, with main focus on understanding the contribution of trees to the productivity, functioning and provision of ecosystem services of Iberian Dehesas, under different management schemes.

He has coordinated two projects and participated in another five funded by Spanish Research Programs. He has also a long experience (> 20 years) working in European projects, outstanding the recent coordinating of the work package for wood pastures in the AGFORWARD project (EU FP7;



2015-2018), that aimed to provide innovative practices to increase the resilience of agroforestry systems to current climatic and socioeconomic challenges. Some projects on course are: BIOGEA (Testing Biodiversity Gain of European Agriculture with CAP greening; EU-H2020; 2017-2019), PRODEHESA-MONTADO (Integral Valorization of the Dehesa-Montado; INTERREG V-A/POCTEP; 2017-2019); MONTADO-ADAPT (Montado & Climate: A need to adapt; LIFE program; 2016-2020), and REGENERATE (Revitalizing multifunctional Mediterranean agrosilvopastoral systems using dynamic and profitable operational practices; LIFE program; 2017-2021).

He is author of 108 papers published in journal internationally recognized (SCI) in the area of Agriculture and Biological Sciences, such as Agricultural and Forest Meteorology, Agriculture, Ecosystems and Environment, Plant and Soil, Biogeosciences, Scientific Report, Global Environmental Change, Science of the Total Environment, Agroforestry systems, Science Advances and Nature Communications. His works have received more than 2000 references, reaching an h-index of 28 (web of science). He has worked with scientist of > 20 countries, and currently works in close collaboration with the Department of Biochemical Integration of the Max Planck Institute of Biogeochemistry (Jena, Alemania), focused on the response of dehesas to global change (climate and nitrogen fertilization of the biosphere).

Part C. RELEVANT MERITS

C.1. Publications (see others in CV of Victor Rolo, Co-IP of the proposal)

- Pacheco-Labrador J, Perez-Priego O, El-Madany T, Julitta T, Rossini M, Guan J, **Moreno G** (+11) 2019. Multiple-constraint inversion of scope. Evaluating the potential of GPP and SIF for the retrieval of plant functional traits. Remote Sensing of Environment (in press)
- Hernández-Esteban A, Rolo V., López-Díaz ML, & **Moreno G** (2019). Long-term implications of sowing legume-rich mixtures for plant diversity of Mediterranean wood pastures. Agriculture, Ecosystems & Environment, 286, 106686
- Arenas-Corraliza MG, Rolo V, López-Díaz ML, **Moreno G**. (2019). Wheat and barley can increase grain yield in shade through the acclimation of physiologic and morphologic traits in Mediterranean conditions. Scientific Reports 9, 9547
- Nair RK, Morris KA, Hertel M, Luo Y, **Moreno G**, Reichstein M, Schrumph M, Migliavacca M (2019). N: P stoichiometry and habitat effects on Mediterranean savanna seasonal root dynamics. Biogeosciences 16(9), 1883-1901
- Kay S, Graves A, Palma J, **Moreno G** J(+14) 2019. Agroforestry is paying off – Economic evaluation of ecosystem services in European landscapes with and without agroforestry systems. Ecosystem Services 36, 100896
- G Moreno**, V Rolo. 2019. Agroforestry practices: Silvopastoralism. In: Agroforestry for sustainable agriculture, MR Mosquera-Losada and R Prabh (Eds.). Burleigh Dodds Science Publishing, Cambridge, UK, pp 1-47 (BOOK CHAPTER; doi: 10.19103/AS.2018.0041.05)
- El-Madany TS, Reichstein M, Perez-Priego O, Carrara A, **Moreno G**, Martín MP, Pacheco-Labrador J, Wohlfahrt G, Nieto H, Weber U, Kolle O, Luo YP, Carvalhais M (2018). Drivers of spatio-temporal variability of carbon dioxide and energy fluxes in a Mediterranean savanna ecosystem. Agricultural and Forest Meteorology 262, 258-278
- Arenas-Corraliza MG, López-Díaz ML, **Moreno G** (2018). Winter cereal production in a Mediterranean silvoarable walnut system in the face of climate change. Agriculture, Ecosystems & Environment 264, 111-118
- Moreno G** (+16). 2018. Agroforestry systems of high nature and cultural value in Europe: provision of commercial goods and other ecosystem services. Agroforestry Systems 92(4) 877-891.
- Torralba M, Fagerholm N, Hartel T, **Moreno G**, Plieninger T. 2018. A social-ecological analysis of ecosystem services supply and trade-offs in European wood-pastures. Science Advances 4(5), eaar2176
- Migliavacca M, Perez-Priego O, Rossini M, El-Madany TS, **Moreno G** (+20) (2017). Plant functional traits and canopy structure control the relationship between photosynthetic CO₂ uptake and far-red sun-induced fluorescence in a Mediterranean grassland under different nutrient availability. New Phytologist 214(3), 1078-1091



- Michael den Herder, **Gerardo Moreno** (+14). 2017. Current extent and stratification of agroforestry in the European Union. Agriculture, Ecosystems & Environment 241, 121-132.
- López-Díaz ML, Benítez R, **Moreno G**. 2017. How management techniques affect carbon sequestration in intensive hardwood plantations? Forest Ecology and Management 389, 228-239.
- Moreno G**, Gonzalez-Bornay G, Pulido F, Lopez-Diaz ML, Bertomeu M, Juárez E, Diaz M. 2016. Exploring the causes of high biodiversity of Iberian dehesas: the importance of wood pastures and marginal habitats. Agroforestry Systems 90: 87-105.
- Rivest D, Rolo V, López-Díaz L, **Moreno G**. 2011. Shrub encroachment in Mediterranean silvopastoral systems: Retama sphaerocarpa and Cistus ladanifer induce contrasting effects on pasture and Quercus ilex production. Agriculture, Ecosystems and Environment 141: 447-454. DOI: 10.1016/j.agee.2011.04.018.
- Moreno G**, Pulido FJ. 2009. The functioning, management, and persistence of dehesas. In: Agroforestry Systems in Europe. Current Status and Future prospects. Riguero-Rodríguez, A., Mosquera-Losada, M.R., McAdam, J. (eds.). Advances in Agroforestry Series, Springer Publishers. pp. 127-161 (BOOK CHAPTER; doi:10.1007/978-1-4020-8272-6_7).

C.2. Research projects and grants

PROJECT TITLE: Revitalización de sistemas agrosilvopastoriles mediterráneos multifuncionales utilizando prácticas dinámicas y rentables

FINANCIAL ENTITY: E.U. LIFE16 ENV/ES/000276 REGENERATE

PRINCIPAL INVESTIGATOR: Francisco Javier Mesías (UEX)

BUDGET: 258701 € for University of Extremadura

PERIOD: 2017-2021

PROJECT TITLE: Montado & Climate; a need to adapt

FINANCIAL ENTITY: LIFE15 CCA/PT/000043 MONTADO ADAPT

PRINCIPAL INVESTIGATOR: Manuel Bertomeu García.

BUDGET: 82712 € for UEX

PERIOD: 2016-2021

CONTRACT TITLE: Manejo de la biodiversidad de la dehesa para aumentar su resiliencia frente al cambio climático

FINANCIAL ENTITIES: Fundación Biodiversidad (Ref CA_CC17)

PRINCIPAL INVESTIGATOR: Victor Rolo (University of Extremadura)

BUDGET: 47824 €

PERIOD: 2018-2019

PROJECT TITLE: Evaluation of the consequences of CAP greening on the biodiversity and ecosystems services provided by European agriculture

FINANCIAL ENTITY: E.U. BiodivERsA3 2015-2016 (PCIN-2016-126)

PRINCIPAL INVESTIGATOR: Gerardo Moreno (leader of Spanish team). Katrina Marsden, adelphi research gGmbH, Berlin, Germany ((leader at European level).

BUDGET: (100 000 € for UEX)

PERIOD: 2016-2019

PROJECT TITLE: Control de las plagas de encina a través del manejo ganadero: bases biológicas y nuevas aplicaciones tecnológicas

FINANCIAL ENTITY: Ministerio de Economía y Competitividad (AGL2014-54739-R)

PRINCIPAL INVESTIGATOR: Raul Bonal Andrés (University of Extremadura)

BUDGET: 169.400 €

PERIOD: 2015-2017

PROJECT TITLE: Proyecto de Cooperación Transfronteriza para la Valorización integral de la Dehesa y el Montado

FINANCIAL ENTITY: European Commission. POPTEC: 0276_PRODEHESA_MONTADO_6_E

PRINCIPAL INVESTIGATOR: Gerardo Moreno (leader of UEX team). María José Trinidad (CYCITEX, Spain), leader at European level.

BUDGET: 301473 € for UEX

PERIOD: 2015-2019

PROJECT TITLE: AGFORWARD: AGroFOREstry that Will Advance Rural Development

FINANCIAL ENTITY: E.U. 7^o programa Marco (FP7-KBBE-2016-7, Grant Agreement Nº 613520).

PRINCIPAL INVESTIGATOR: Gerardo Moreno (Spanish coordinator). Paul Burgess (Cranfield, U.K; European coordinator).

BUDGET: 5 994 766 € 26 partners (301,552 € for UEX)

PERIOD: 2014-2017



PROJECT TITLE: BioBio: Indicators for biodiversity in organic and low-input farming systems
FINANCIAL ENTITY: European Commission, FP7 - KBBE-2008-1-2-01 - 227161
PRINCIPAL INVESTIGATOR: Gerardo Moreno Marcos (Spanish Coordinator); Feliz Herzog (Agroscope, Switzerland; European coordinator)
BUDGET: 168 522 € (for EUX) PERIOD: 2009-2013

PROJECT TITLE: SILVOMAD: Manejo silvopastoral para la producción de madera de calidad: bases funcionales, productividad y servicios ambientales.
FINANCIAL ENTITY: Plan Nacional de Investigación del Ministerio de Ciencia e Investigación (AGL2011-25456)
PRINCIPAL INVESTIGATOR: María Lourdes LÓPEZ DIAZ
BUDGET: 96 800 € PERIOD: 2012-2014

PROJECT TITLE: Evaluación de los efectos ecológicos y productivos de un nuevo modelo de gestión en mosaico de las dehesas
FINANCIAL ENTITY: Ministerio de Educación y Ciencia (AGL2006-09435/FOR)
PRINCIPAL INVESTIGATOR: Gerardo Moreno Marcos
BUDGET: 59000 € PERIOD: 2006-2009

C.3. Contracts

CONTRACT TITLE: Small and large scale manipulation experiment in dehesa ecosystems (Ref. 150/14)
FINANCIAL ENTITIES: MAX PLANCK INSTITUTE FOR BIOGEOCHEMISTRY, Jena, Germany
PRINCIPAL INVESTIGATOR: Gerardo Moreno (University of Extremadura)
BUDGET: 16170 € per year PERIOD: 2104 - Continue

CONTRACT TITLE: Understanding the link between traditional land-use practices and biodiversity / ecosystem services: Monitoring biodiversity in Iberian dehesa (Ref. 229/18)
FINANCIAL ENTITIES: Fundación Trashumancia y Naturaleza
PRINCIPAL INVESTIGATOR: Gerardo Moreno (University of Extremadura)
BUDGET: 36 920 € PERIOD: 2118 – 2020

C.4. Evaluation Commission

Collaboration with the **Spanish State Research Agency** (AEI; before named ANEP) for the Area of Agriculture, as expert in Forest Science (January 2016-June 2019)
Expert (2009-2018) and coordinator (2015- continue) for the Agency of the Evaluation of the Research in Castilla-León, for the area of Agriculture and Forestry.

C.5. Peer-Review of Scientific papers (Member of Editorial Board where highlighted with bold)

Agricultural Systems; Agricultural Water Management; **Agriculture, Ecosystems and Environment**, **Agroforestry Systems**; Applied Vegetation Science; Catena; Ecological Engineering; Ecological Modelling; Ecosystems; European Journal Forest Research; Forest Ecology and Management; **Forest Systems**; Journal Arid Environment; Journal of Cleaner Production; Journal Forest Research; Land Degradation and Development ; Land Use Policy; New Forest; Plant and Soil; Restoration Ecology; Science of the Total Environment; Small Ruminant Research

C6. Dissemination and Transfer

Member of (i) Observatory for Climate Change (Region of Extremadura) since 2011, (ii) scientific board of FEDEHESA (Spanish Association of Dehesa Farmers) since 2015; scientific board of UGAVAN (Spanish Association of Cow Breeders) since 2016.
30 conferences for stakeholder auditoriums, 10 articles in specialized journals (Foresta, Ambienta, Agricultura Ecológica, Montes, Innovations Agronomiques...) and collaboration in TV/radio programs (TV2, Canal Extremadura, Canal ARTE (France/Germany), Radio France Internationale, BBC online ...)