

SARA MARAÑÓN JIMÉNEZ

PERSONAL INFORMATION

nationality Spanish
date of birth 30 September 1983
email s.maranon@creaf.uab.cat
phone +34 657151341

EDUCATION

2007-2011 University of Granada, Spain
PhD Grade: A *Cum Laude* · *European PhD* · School: Department of Ecology. Faculty of Sciences. University of Granada.
Thesis: *Effect of the burnt wood management after a wildfire on the carbon and nutrient cycles in a Mediterranean mountain ecosystem*
Advisors: Dr. Jorge CASTRO, Prof. Regino ZAMORA & Prof. Andrew S. KOWALSKI.
Committee: Dr. Jorge de las Heras, Dr. Antonio Gallardo, Dr. Robert Jandl, Dr. Craig D. Allen, Dr. Emilia Fernández-Ondoño.

2009 University of Granada, Spain
Master Thesis Grade: A · *Master Thesis dissertation* · School: Department of Ecology. Faculty of Sciences. University of Granada.
Thesis: *Burnt wood after wildfires as a nutrient reservoir for the soil in an altitudinal gradient: Woody debris to improve the soil fertility*

2006-2008 University of Granada, Spain
Doctorate Program Grade: A · *Doctorate program in Environmental Biology (Master)* · School: Faculty of Sciences. University of Granada.

2007 UNIVERSITY OF GRANADA — Granada, Spain
Postgraduate Program Postgraduate Teacher Certification Program (PGCE)

2001-2006 University of Málaga, Spain
University Degree Grade: 2.73 · *Degree of Environmental Sciences* · School: Faculty of Sciences. University of Málaga.

PROFESSIONAL EXPERIENCE

2017-present CENTER FOR ECOLOGICAL RESEARCH AND FORESTRY APPLICATIONS (CREAF) — Barcelona, Spain
Post-Doctoral Fellow Effect of soil warming on N cycle and plant-soil interactions.
Advisor: Josep PEÑUELAS

2016-2017 UNIVERSITY OF GRANADA — Granada, Spain
Post-Doctoral Fellow Evaluation of sustainable agricultural practises to enhance soil carbon sequestration in olive groves.
Advisor: Andrew S. KOWALSKI

2015-2016 UNIVERSITY OF ANVERS — Anvers, Belgium
Post-Doctoral Fellow Use of geothermal soil gradients in Iceland to study warming effects on soil biogeochemical processes.

Advisor: Ivan JANSSENS

2012–2015 HELMHOLTZ CENTER OF ENVIRONMENTAL RESEARCH (UFZ) —
Leipzig, Germany

*Post-Doctoral
Position*

Assessment of carbon stocks, fluxes and tree transpiration in mixed deciduous forests.
Advisor: Matthias CUNTZ & Corinna REBMANN

2012–2015 HELMHOLTZ CENTER OF ENVIRONMENTAL RESEARCH (UFZ) —
Leipzig, Germany

*Participation in
Research Projects*

Researcher in 2 international research projects and member of 2 research international networks (ICOS & TERENO).

2011–2012 UNIVERSITY OF GRANADA — Granada, Spain

*Post-Doctoral
Position*

Monitoring network of carbon fluxes in Spanish Mediterranean ecosystems– quantification and processes assessment.
Advisor: Andrew S. KOWALSKI

2007–2011 UNIVERSITY OF GRANADA — Granada, Spain

Research Assistant

Effect of the post-fire silvicultural treatments on the CO₂ fluxes and the carbon balance: Analysis of policies that optimise the carbon sequestration in Mediterranean ecosystems.
Advisors: Jorge CASTRO, Regino ZAMORA & Andrew S. KOWALSKI

2010 UNIVERSITY OF ANTWERPEN — Anvers, Belgium

Guest Researcher

Study of temperature sensitivity and substrate addition on soil respiration of peat soils.
Advisor: Ivan JANSSENS

2008 ECOLOGICAL RESTORATION INSTITUTE. NORTHERN ARIZONA
UNIVERSITY. — Arizona, USA

Guest Researcher

Fire ecology and evaluation of prescribed fires on ecosystem functions.
Advisor: Peter FULÉ

2007–2011 UNIVERSITY OF GRANADA — Granada, Spain

*Participation in
Research Projects*

Collaboration as a researcher in 14 research projects (1 international).

2003 UNIVERSITY OF MÁLAGA — Málaga, Spain

*Research
Internship*

Research group of Genetics. Department of Cellular Biology, Genetics and Physiology. Faculty of Sciences.
Advisor: Cayo RAMOS

GRANTS & FELLOWSHIPS

2017-present CENTER FOR ECOLOGICAL RESEARCH AND FORESTRY APPLICATIONS
(CREAF)

*Post-doctoral
Fellowship*

Post-doctoral Marie Słodowska-Curie Fellowship. EU Horizon 2020 Research and Innovation Programme.

2015 UNIVERSITY OF GRANADA

Prize

Award to the Extraordinary Doctorate by the University of Granada.

2015–2017 UNIVERSITY OF ANVERS – UNIVERSITY OF GRANADA

*Post-doctoral
Fellowship*

Andalusia Talent Hub Fellowship Program. EU 7th Framework Programme via Marie Curie Actions and Andalusian Knowledge Agency (AAC).

	2014	UNIVERSITY OF GHENT — Ghent, Belgium
<i>Research Grant</i>		Program for access to state-of-the-art research facilities. Designing Trees for the Future (Trees4Future). EU 7th Framework Programme (FP7).
	2011–2012	UNIVERSITY OF GRANADA — Granada, Spain
<i>Post-doctoral Fellowship</i>		Post-doctoral fellowship of the University of Granada.
	2007–2011	UNIVERSITY OF GRANADA — Granada, Spain
<i>PhD Fellowship</i>		PhD fellowship for Training of University Professionals of the Spanish Ministry of Education and Science (FPU-MEC).
	2007	UNIVERSITY OF GRANADA — Granada, Spain
<i>PhD Fellowship</i>		PhD fellowship of the University of Granada.
	2006	SUPERIOR COUNCIL OF SCIENTIFIC RESEARCH (CSIC) — Granada, Spain
<i>Research Training Grant</i>		Introduction to research. Research group of vegetal protection. Experimental research station El Zaidin.

TEACHING EXPERIENCE

	2016–2017	UNIVERSITY OF GRANADA — Granada, Spain
<i>Assistant Professor</i>		Physics, Environmental physics. Grade in Environmental Sciences.
	2017	UNIVERSITY OF GRANADA — Granada, Spain
<i>Supervision of Final Degree Projects</i>		Dynamics of soil CO ₂ emissions: Spatial and temporal variability and determining factors. PhD student: Carmen UNQUILES REYES
	2016	INTERNATIONAL ASOCIATION ARCADIA UNIVERSITY — Granada, Spain
<i>Supervision of International Master Students</i>		Temporal variability and temperature sensitivity of soil respiration in an irrigated olive grove under different managements. PhD student: Andrew MIHM
	2016t	UNIVERSITY OF GRANADA — Granada, Spain
<i>Supervision of Final Degree Projects</i>		Spatial variability of soil respiration in an irrigated olive grove under different managements. PhD student: Cristina CAMPOS LENDÍNEZ
	2012–2015	HELMHOLTZ CENTER OF ENVIRONMENTAL RESEARCH (UFZ) — Leipzig, Germany
<i>Supervision of PhD Students</i>		Evapotranspiration and sap flux of the Thuringian forests. PhD student: Andreas WIEDEMANN
	2012	ACCREDITATION AS ASSISTANT PROFESSOR
<i>Habilitation as Assistant Professor</i>		Spanish National Agency for Quality Evaluation and Accreditation (ANECA)
	2009–2012	UNIVERSITY OF GRANADA — Granada, Spain
<i>Assistant Professor</i>		Ecology of organisms and populations, Ecology of communities and systems, Fundamentals of applied biology I, Ecology. Grade in Environmental Sciences, University degree in Biology.

*Supervision of
Undergraduate
Students*

Soil CO₂ fluxes measured with portable chamber system in a burnt Alpine forest.
Student: Alberto JIMÉNEZ ARIZA

PUBLICATIONS IN INDEXED JOURNALS

- Tree Physiology* **Marañón-Jimenez, S.,** VAN DEN BULCKE J., PIAYDA, A., VAN ACKER, J., CUNTZ, M., STEPPE K. 2017. Sap flow is underestimated by the insertion of thermal dissipation sensors and the consequent alteration of wood anatomy. <https://doi.org/10.1093/treephys/tpx103>
- European Journal of Forest Research* MOLINAS-GONZALES C., LEVERKUS, A., **Marañón-Jimenez, S.,** CASTRO, J. 2017. Fall rate of burnt pines across an altitudinal gradient in a Mediterranean mountain 136(3), 401-409
- Tree Physiology* WIEDEMANN, A., **Marañón-Jimenez, S.,** REBMANN, C., HERBST, M., CUNTZ, M. 2016. An empirical study of the wound effects on sap flow measured with thermal dissipation probes 36(12), 1471-1484
- Restoration Ecology* LEVERKUS, A., CASTRO, J., DELGADO-CAPEL, M., MOLINAS-GONZALES C., PULGAR, M., **Marañón-Jimenez, S.,** DELGADO-HUERTAS, A., QUEREJETA, I. 2015. Restoring for the present or restoring for the future: enhanced performance of planted oak seedlings above the current forest limit 23 - 6, 936 - 946
- Forest Ecology and Management* **Marañón-Jimenez, S.,** CASTRO, J., QUEREJETA I., FERNANDEZ-ONDOÑO, E., ALLEN C.D. 2013. Post-fire salvage logging increases water stress and reduces seedling growth and performance of Pinus pinaster in the Sierra Nevada (SE Spain) 308, 231-239
- International Journal of Wildland Fire* **Marañón-Jimenez, S.,** CASTRO, J., FERNANDEZ-ONDOÑO, E., ZAMORA, R. 2013. Charred wood remaining after a wildfire as a reservoir of macro- and micronutrients in a Mediterranean pine forest 22, 681-695
- Biogeochemistry* **Marañón-Jimenez, S.,** CASTRO, J. 2012. Effect of decomposing post-fire coarse woody debris on soil fertility and nutrient availability in a Mediterranean ecosystem 112, 519-535
- Forest Ecology and Management* SERRANO-ORTIZ, P., **Marañón-Jimenez, S.,** REVERTER, B.R., SANCHEZ-CAÑETE, E.P., CASTRO, J., ZAMORA, R., KOWALSKI A.S. 2011. Post-fire salvage logging reduces carbon sequestration in Mediterranean coniferous forest 262, 2287-2296
- Forest Ecology and Management* **Marañón-Jimenez, S.,** CASTRO, J., KOWALSKI, A.S., SERRANO-ORTIZ, P., REVERTER, B.R., SANCHEZ-CAÑETE, E.P., ZAMORA, R. 2011. Post-fire soil respiration in relation to burnt wood management in a Mediterranean mountain ecosystem 261, 1436-1447
- Restoration Ecology* CASTRO, J., ALLEN, C.D., MOLINA-MORALES, M., **Marañón-Jimenez, S.,** SANCHEZ-MIRANDA, A., ZAMORA, R. 2011. Salvage logging versus the use of burnt wood as a nurse object to promote postfire tree seedling establishment 19, 537-544
- Nature Geoscience (under review)* LEBLANS, N. I. W., SIGURDSSON, B. D., VICCA, S., SOONG, J. L., WEEDON, J. T., , POEPLAU, C., VAN DE VELDE K., VERBRUGGEN, E., WALLANDER, H., LIU, Z. F., **Marañón-Jimenez, S.,** GUNDERSEN, P., MALJANEN M., GUENET, B., DAUWE, S., KITTERER, T., ODDSDTTIR, E. S., OSTONEN, I., PEÑUELAS, J., RICHTER, A., VAN BODEGOM, P. M., WALKER, T. N., JANSSENS, I. A. 2017. Fast and persistent soil carbon reductions in naturally-warmed grasslands
- Soil Biology and Biochemistry (under review)* SOONG, J., **Marañón-Jimenez, S.,** COTRUFO, M.F., BOECKX, P., BODE, S., GUENET, B., PEÑUELAS, J., RICHTER, A., STAHL C., VERBRUGGEN, E., JANSSENS, I.A. 2017. Decoupling of microbial P and C:N responses to nutrient amendments: evidence from a tropical soil incubation
- Soil Biology and Biochemistry (under review)* **Marañón-Jimenez S.,** SOONG J., LEBLANS N., SIGURDSSON B. D., PEÑUELAS, J., RICHTER, A., FRANSEN E., JANSSENS I. 2017. Soil warming increases metabolic quotients of soil microorganisms without changes in temperature sensitivity of soil respiration
- Forests (under review)* PEÑUELAS, J. ET AL. 2017. Impacts of global change on Mediterranean terrestrial ecosystems and their services

BOOK CHAPTERS AND OTHER PUBLICATIONS

- Conference proceeding* WIEDEMANN, A., **Marañon-Jimenez, S.**, REBMANN, C., CUNTZ, M., HERBST, M. 2013. An empirical study of wound response dynamics on sap flow measured with thermal dissipation probes. *Acta Horticulturae (ISHS)* 991,107-113. ISSN: 0567-7572, ISBN: 978-90-6605-506-3
- Conference proceeding* CASTRO, J., LEVERKUS, A.B., **Marañon-Jimenez, S.**, SERRANO-ORTIZ, P., SANCHEZ-CAÑETE, E.P., REVERTER B.R., GUZMAN-ALVAREZ, J.R., KOWALSKI, A.S. 2013. Efecto del manejo de la madera quemada sobre la restauración y regeneración post-incendio: implicaciones para la gestión y para el conjunto del ecosistema. *Proceedings of the VI Spanish Forestry Congress*. ISBN: 978-84-937964-9-5
- Divulgative article* **Marañon-Jimenez, S.** 2012. Effect of the burnt wood management after a wildfire on the carbon and nutrient cycles in a Mediterranean mountain ecosystem. *FLAMMA*, 3, (1), 43-49. ISSN: 2171-665X
- Book* **Marañon-Jimenez, S.** 2012. Effect of the burnt wood management after a wildfire on the carbon and nutrient cycles in a Mediterranean mountain ecosystem. Doctoral thesis. University of Granada
- Conference proceeding* SERRANO-ORTIZ, P., **Marañon-Jimenez, S.**, CASTRO, J., RUIZ B., SANCHEZ-CAÑETE, E.P., ZAMORA, R., KOWALSKI, A.S. 2011. Post-fire Salvage logging management represses the role of Mediterranean coniferous forests as carbon sinks. *Geophysical Research Abstracts*, 13, EGU2011-783. ISSN: 1029-7006. e-ISSN: 1607-7962
- Book chapter* RODEGHIERO, M., RUBIO, A., DIAZ-PINES, E., ROMANYA, J., **Marañon-Jimenez, S.**, LEVY, G.J., FERNANDEZ-GETINO, A.P., SEBASTIA, M.T., KARYOTIS, T., CHITI, T., SIRCA, C., MARTINS, A., MADEIRA, M., ZHIYANSKI, M., GRISTINA, L., LAMANTIA, T. 2011. Soil carbon in Mediterranean ecosystems and related management problems. In: Jandl, R., Rodeghiero, M., Olsson, M. (Eds.) *Soil Carbon in Sensitive European Ecosystems: From Science to Land Management*. John Wiley & Sons, Ltd. p.175-219, ISBN: 978-1-1199-7001-9
- Conference proceeding* **Marañon-Jimenez, S.**, CASTRO, J., KOWALSKI, A.S., SERRANO-ORTIZ, P., REVERTER, B.R., SANCHEZ-CAÑETE, E.P., ZAMORA, R. 2010. Post-Fire Soil Respiration in Relation to the Burnt Wood Management. *Geophysical Research Abstracts*, 12, EGU2010-15036. ISSN: 1029-7006, e-ISSN: 1607-7962.
- Conference proceeding* **Marañon-Jimenez, S.**, FERNANDEZ-ONDOÑO, E., CASTRO, J. 2010. Burnt wood in forest fires as a nutrient reservoir for the soil in an altitudinal gradient. In: Spanish Society of Soil Sciences (Eds.) *Proceedings of the IV Iberian Soil Science Congress*. p.1118-1132, Granada. ISBN: 978 84-15026-39-6.
- Book chapter* CASTRO, J., **Marañon-Jimenez, S.**, SANCHEZ-MIRANDA, A., LORITE, J. 2010. Efecto del manejo de la madera quemada sobre la regeneración forestal post-incendio: desarrollo de técnicas blandas de restauración ecológica. In: Ramírez, L., Asensio, B. (Eds.), *Proyectos de Investigación en Parques Nacionales: 2006-2009*. Organismo Autónomo de Parques Nacionales, p. 139-157, Madrid.
- Conference proceeding* **Marañon-Jimenez, S.**, CASTRO, J., KOWALSKI, A.S., SERRANO-ORTIZ, P., REVERTER, B.R., SANCHEZ-CAÑETE, E.P., ZAMORA, R. 2009. Effects of the post-fire management on soil CO₂ respiratory fluxes. In: S.E.C.E.F.-Junta de Castilla-Len. Spanish Society of Forest Sciences (Eds.), *Proceedings of the V Spanish Forestry Congress*. Ávila. ISBN: 978-84-936854-6-1 Ref.: 5CFE01-433

CONFERENCE COMMUNICATIONS (SELECTION)

- Poster* **Marañon-Jimenez S.**, SERRANO-ORTIZ, P., VICENTE-VICENTE J.L., CHAMIZO S., KOWALSKI, A. S. 2017. Influence of sustainable irrigation regimes and agricultural practices on the soil CO₂ fluxes from olive groves in SE Spain. *European Geosciences Union General Assembly (EGU)*. Viena (Austria)
- Poster* **Marañon-Jimenez S.**, SOONG J., LEBLANS N., SIGURDSSON B. D., PEÑUELAS, J., RICHTER, A., FRANSEN E., JANSSENS I. 2017. Soil warming increases metabolic quotients of soil microorganisms without changes in temperature sensitivity of soil respiration. *European Geosciences Union General Assembly (EGU)*. Viena (Austria)
- Oral presentation* **Marañon-Jimenez, S.**, SCHUETZE, C., CUNTZ, M., GARCIA-QUIROS, I., DIENSTBACH L., SCHRUMPE, L.,

- REBMANN, C. 2016. Changes in Soil Carbon Stocks and Fluxes in Response to Altered Above- and Belowground Vegetation Inputs. American Geosciences Union (AGU) Fall Meeting. San Francisco (USA)
- Invited presentation* **Marañon-Jimenez, S.** 2016. Workshop on sustainable agricultural management practices to increase carbon sequestration in the olive grove. Mengibar (Spain)
- Poster* **Marañon-Jimenez, S., REBMANN, C., SCHRUMPF, M., CUNTZ, M.** 2015. The interaction between above and belowground organic inputs may control soil carbon sequestration capacity. 5th International Symposium of Soil Organic Matter. Göttingen (Germany)
- Oral presentation* **Marañon-Jimenez, S., WIEDEMANN, A., VAN DEN BULCKE, J., PIAYDA, A., CUNTZ, M., REBMANN, C., VAN ACKER, J., STEPPE, K.** 2014. Sap flow is Underestimated by Thermal Dissipation Sensors due to Alterations of Wood Anatomy. American Geosciences Union (AGU) Fall Meeting. San Francisco (USA)
- Oral presentation* WIEDEMANN, A., **Marañon-Jimenez, S., CUNTZ M., HERBST, M. REBMANN, C.** 2014. An empirical study of the wound effects on sap flow measured with thermal dissipation probes. American Geosciences Union (AGU) Fall Meeting. San Francisco (USA)
- Poster* WIEDEMANN, A., **Marañon-Jimenez, S., REBMANN, C., CUNTZ M., HERBST, M.** 2013. An empirical study of wound response dynamics on sap flow measured with thermal dissipation probes. IX International Workshop of Sapflow. Ghent (Belgium)
- Poster* **Marañon-Jimenez, S., MILTNER, A., REBMANN, C., CUNTZ, M.** 2013. Drought severity effects on the C sources for microorganisms during soil rewetting CO₂ pulses. Soil Systems and Critical Zone Processes. Integrate Life support functions Across Disciplines. Ascona (Switzerland) **Poster Prize**
- Oral presentation* **Marañon-Jimenez, S., CASTRO, J., QUEREJETA, J.I., FERNANDEZ-ONDOÑO, E., ALLEN, C.D.** 2011. Post-fire salvage logging increases water stress and reduces seedling growth and nutrient uptake of *Pinus pinaster* in the Sierra Nevada, Spain. XII European European Federation (EEF). Ávila (Spain)
- Oral presentation* **Marañon-Jimenez, S., CASTRO, J., KOWALSKI, A.S., ZAMORA, R.** 2010. Effects of post-fire silvicultural treatments related to the burned wood on the soil nutrient availability and soil carbon sequestration. Society of Ecological Restoration European Conference. Avignon (France)
- Oral presentation* **Marañon-Jimenez, S., FERNANDEZ-ONDOÑO, E., CASTRO, J.** 2010. Burnt wood in forest fires as a nutrient reservoir for the soil in an altitudinal gradient. IV Iberian Conference of Soil Sciences. Granada (Spain)
- Poster* **Marañon-Jimenez, S., CASTRO, J., KOWALSKI, A.S., ZAMORA, R.** 2009. Role of the burnt wood in the recovery of the soil fertility after forest wildfires. II International Meeting 'Forest Fire Effects on Soils'. Thematic National Network: Effects of Forest Fires over the Soils (FuegoRed). Sevilla and Cortegana (Spain) **Poster Prize**
- Oral presentation* **Marañon-Jimenez, S., FERNANDEZ-ONDOÑO, E., CASTRO, J.** 2009. Burnt wood in forest fires as a nutrient reservoir for the soil in an altitudinal gradient. IX Congress of the Spanish Association of Terrestrial Ecology. Úbeda (Spain)
- Oral presentation* **Marañon-Jimenez, S., CASTRO, J., KOWALSKI, A.S., SERRANO-ORTIZ, P., RUIZ, B., SANCHEZ-CAÑETE, E.P., ZAMORA, R.** 2009. Effect of the post-fire management on the soil respiratory CO₂ fluxes. V Spanish Forest Congress. Ávila. (Spain)
- Oral presentation* **Marañon-Jimenez, S.** 2009. Rainfall events overshadow post-fire burnt wood management and temperature effects in determining soil respiration in Mediterranean mountain ecosystems. Greenhouse-Gas Budget of Soils under Changing Climate and Land Use: Soil Carbon in Mediterranean Ecosystems. European Cooperation in Science and Technology (COST Action 639). Florence (Italy)

BIBLIOMETRICS

<i>Scopus</i>	H-index: 7, Citations: 175
<i>ISI Web of Science</i>	H-index: 7, Citations: 156
<i>Google Scholar</i>	H-index: 8, Citations: 239

SCIENTIFIC SERVICES & MEMBERSHIPS

<i>Congress Organization</i>	4th Congress of Environmental Sciences: Tourism and Sustainability, a Joint Commitment (2005)
<i>Reviewer</i>	Applied Vegetation Science, Ecoscience, Forest Ecology and Management, Journal of Arid Environments, Pedosphere, Biogeosciences Discussions, Global Change Biology, Forests, Agricultural and Forest Meteorology.
<i>Project Reviewer</i>	Postdoctoral Fellowships Programs of the National Science Foundation, Argentinian Funds for the Scientific and Technologic Research
<i>Professional memberships</i>	Spanish Thematic Network of Effects of Forest Fires on Soils (Fuegored), Spanish Association of Terrestrial Ecology (AEET), COST Action 639: Greenhouse-gas budget of soils under changing climate and land use, European Geosciences Union (EGU), American Geosciences Union (AGU)

OTHER SKILLS

<i>Computer skills</i>	Python, R, JMP, ArcGis, ImageJ (INTERMEDIATE)
<i>Languages</i>	Spanish (MOTHER TONGUE), English (FLUENT), German, Italian (INTERMEDIATE, B1 LEVEL)
<i>Driving license</i>	Type B (regular cars)

October 11, 2017