

Curriculum Vitae

Personal information

First name(s) / Surname(s)	Álvaro López García
Telephone(s)	0034 651 69 84 23
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Nationality	Spanish
Date of birth	29/04/1983
Researcher ID	J-9190-2014
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Education

Date	19/09/2013
Title of qualification awarded	PhD
Name and type of organisation	Estación Experimental del Zaidín, CSIC; University of Granada (Spain)
Date	23/07/2009
Title of qualification awarded	Master degree in Agrarian Biology
Name and type of organisation	University of Granada (Spain)
Date	23/07/2007
Title of qualification awarded	Bachelor degree in Environmental Sciences
Name and type of organisation	University of Granada (Spain)

Previous positions

Date	15/05/2014 – 28/02/2015
Occupation	Postdoctoral researcher
Name of research center	Lab. Prof. Søren Rosendhal, Department of Biology, University of Copenhagen (Denmark)
Date	01/10/2013 – 01/02/2014
Occupation	Postdoctoral researcher (Short Research Fellowship for young researchers of DAAD)
Name of research center	Lab. Prof. Matthias C. Rillig, Biology Institute, Freie Universität von Berlin (Germany)
Date	2007 – 2013
Occupation	PhD student (Research Grant of Spanish Government)
Name of research center	Lab. Prof. José Miguel Barea, Estación Experimental del Zaidín, CSIC
Date	15/10/2010 – 15/12/2010
Occupation	PhD student (short stay)
Name of research center	Lab. Prof. Matthias C. Rillig, Biology Institute, Freie Universität von Berlin (Germany)
Date	15/04/2009 – 15/06/2009
Occupation	PhD student (short stay)
Name of research center	Lab. Prof. John Klironomos, Faculty of Integrative Biology, University of Guelph (Canada)
Date	2004 - 2005
Occupation	Bachelor student (Research Grant of the Spanish Government)
Name of research center	Lab. Prof. Joaquín Molero, Department of Botany, University of Granada (Spain)
Date	01/06/2004 – 31/12/2004
Occupation	Bachelor student (Research Grant of the University of Granada, Spain)
Name of research center	Lab. Prof. Joaquín Molero, Department of Botany, University of Granada (Spain)

Fellowships and Awards

2013 - German Academic Exchange Service (DAAD), **Postdoctoral Fellowship for Young Researchers**. 4 months. Lab of Prof. Matthias C. Rillig, Biology Institute, Free University of Berlin (Germany).

2010 – Spanish Ministry of Education and Science, **FPI Travel Research Grant**. 2 months. Lab of Prof. Matthias C. Rillig, Biology Institute, Free University of Berlin (Germany).

2009 – Spanish Ministry of Education and Science, **FPI Travel Research Grant**. 2 months. Lab of Prof. John N. Klironomos, Faculty of Integrative Biology, University of Guelph (Canada).

2007 – Spanish Ministry of Education and Science, **PhD student FPI Fellowship**. 48 months. Lab of Prof. José M. Barea, Estación Experimental del Zaidín (CSIC, Spain).

2004 – Spanish Education Ministry (Spain): **Research Collaboration Fellowship** for graduate students. 6 months. Lab of Prof. Joaquín Molero, Department of Botany, University of Granada (Spain).

2004 – University of Granada (Spain): **Introduction to Research Fellowship** for graduate students. 4 months. Lab of Prof. Joaquín Molero, Department of Botany, University of Granada (Spain).

JOURNAL REFEREE for the following scientific journals: Biology and Fertility of Soils, Botany Botanique, Journal of Arid Environments, Journal of Vegetation Science, Oecologia, Pedosphere, Plos One, Tree Structure and Function.

PROJECT REFEREE for The Czech Science Foundation GACR, Czech Republic.

Supervision of students

During my PhD thesis I supervised **three Master students** who worked in short studies related to morphological and molecular diversity of AM fungi. Meanwhile I finished my PhD, I guided and supervised the initial time of the PhD student **Sara Varela-Cervero**, who started her PhD four years later than me. I taught her in the use of molecular techniques and statistical analyses, I supervised some of her manuscripts preparation which are going to be submitted soon. During the time in Copenhagen, I am supervising the PhD student **María M. Montiel** during her short visit to my research group. She aimed to disentangle the environmental filtering process acting over AM fungal communities present in mining contaminated sites and we are now preparing a publication from her results.

Participation in research projects

2015 - Restoration and provision of ecosystem services in degraded soils (2015-2017). National Plan of Research Development, Spanish Government (CGL2014-52858-R). PI: Prof. Teodoro Marañón, IRNASE-CSIC.

2014 - Peberholmen - primary succession of mycorrhizal fungi (2011-2014). Carlsberg Research Foundation and University of Copenhagen. PI: Søren Rosendahl. UCPH.

2013-2014 - Biodiversity and land use effects on root biomass and arbuscular mycorrhizal fungal communities in roots (2011-2014). German Biodiversity Exploratories, German Science Foundation DFG. PI: Prof. Matthias Rillig and Dr. Stefan Hempel. Freie Universität Berlin.

2010-2012 - Study of the strategies and dynamic of colonization by mycorrhizal fungi in relation with the restoration of plant communities and/or endangered plant species (2010-2012). National Plan of Research Development, Spanish Government (CGL-2009-08825). PI: Prof. Concepción Azcón-Aguilar. EEZ-CSIC.

2008-2010 - Analysis of mycorrhiza associated with endangered plants of Sierra Nevada, autochthonous fungal diversity and reintroduction of plants with symbiotic fungal partners. Government of Andalusia. PI: Prof. Concepción Azcón-Aguilar. EEZ-CSIC.

2007-2009 - Proposal of a strategy of restoration of endemic and endangered plants based on optimization of their mycorrhizal potential (2006-2009). National Plan of Research Development, Spanish Government. PI: Prof. José M. Barea. EEZ-CSIC.

2005-2006 - Climatic change in Sierra Nevada, monitoring by phytocenology, species and plant communities and biological soil activity (2005-2009). National Plan of Research Development, Spanish Government. PI: Prof. Joaquín Molero. University of Granada.

Referees

Prof. dr. Søren Rosendahl. Professor of University of Copenhagen, Department of Biology, Copenhagen (Denmark). soerenr@bio.ku.dk Phone: 0045 51827003

Prof. dr. José M. Barea. Research Professor of Spanish Council of Scientific Research, Department of Soil Microbiology and Symbiotic Systems, Estación Experimental del Zaidín, Granada (Spain). josemiguel.barea@eez.csic.es Phone: 0034 958 18 16 00

Peer-reviewed articles

1. **A. López-García**, C. Azcón-Aguilar, J.M. Barea. **2014**. The interactions between plant life form and fungal traits of arbuscular mycorrhizal fungi determine the symbiotic community. *Oecologia* 176: 1075-1086.
2. **A. López-García**, J. Palenzuela, J.M. Barea, C. Azcón-Aguilar. **2014**. Life-history strategies of arbuscular mycorrhizal fungi determine succession into roots of *Rosmarinus officinalis* L., a characteristic woody perennial plant species from Mediterranean ecosystems. *Plant and Soil* 379: 247-260.
3. **A. López-García**, S. Hempel, J.D. Miranda, M.C. Rillig, J.M. Barea, C. Azcón-Aguilar. **2013**. The influence of environmental degradation processes on the arbuscular mycorrhizal fungal community associated with yew (*Taxus baccata* L.), an endangered tree species from Mediterranean ecosystems of Southeast Spain. *Plant and Soil* 370: 355-366.
4. J.M. Barea, J. Palenzuela, P. Cornejo, I. Sánchez-Castro, C. Navarro-Fernández, **A. López-García**, B. Estrada, R. Azcón, N. Ferrol, C. Azcón-Aguilar. **2011**. Ecological and functional roles of mycorrhizas in semi-arid ecosystems of Southeast Spain. *Journal of Arid Environments* 75: 1292-1301.

Manuscripts in revision

1. M.M. Montiel-Rozas, **A. López-García**, R. Kjølner, E. Madejón, S. Rosendahl. **2015**. Organic amendments reduces environmental filtering on arbuscular mycorrhizal fungal communities of heavy metal polluted soils. *Applied and Environmental Microbiology*.
2. S. Varela-Cervero, **A. López-García**, J.M. Barea, C. Azcón-Aguilar. **2015**. Seasonality effect on different arbuscular mycorrhizal propagules associated to a Mediterranean shrubland. *Plant and Soil*.

Manuscripts submitted

1. S. Varela-Cervero, **A. López-García**, J.M. Barea, C. Azcón-Aguilar. **2015**. Differential colonization ability of mycorrhizal propagules associated to *Rosmarinus officinalis*. *Mycorrhiza*.
2. C. Cruz-Paredes, **A. López-García**, P. Sørensen, G.H. Rubæk, H. Wallander, R. Kjølner. **2015**. Effect of ash application on arbuscular mycorrhizal fungal colonization and phosphorus uptake of spring barley. *Plant and Soil*.

Manuscripts in preparation

1. **A. López-García**, S. Horn, M.C. Rillig, S. Hempel. Spatial effects explain the distribution of endophytic Sebaciales associated to grassland communities.
2. **A. López-García**, S. Varela-Cervero, M. Vasar, M. Öpik, C. Azcón-Aguilar, J.M. Barea. Environmental and host filtering drive phylogenetic structure of arbuscular mycorrhizal fungal communities.

Congress and Seminars

1. **A. López-García**, H.H. Bruun, R. Kjøller, S. Rosendahl. **Nov 2014**. Use of trait-based approaches in arbuscular mycorrhizal fungal community studies. *NEFOM Annual Conference*. Riga (Latvia). Oral communication
2. M.M. Montiel, **A. López-García**, R. Kjøller, S. Rosendahl, E. Madejón. **Dic 2014**. How affects the application of organic amendments to the richness of arbuscular mycorrhizal fungi in a trace element contaminated soil? *The First Global Soil Biodiversity Conference*. Dijon (France). Poster
3. C. Cruz-Paredes, **A. López-García**, P. Sørensen, H. Wallander, R. Kjøller. **Dic 2014**. Wood ash effects on arbuscular mycorrhizal fungi colonization, activity, diversity and their role in phosphorus and cadmium transfer. *The First Global Soil Biodiversity Conference*. Dijon (France). Poster
4. **A. López-García**, S. Varela-Cervero, E. Berrio, M. Vasar, M. Öpik, R. Kjøller, S. Rosendahl, J.M. Barea, C. Azcón-Aguilar. **Sep 2014**. Linking plant and arbuscular mycorrhizal fungal life-history strategies. *Biotic interactions: Underlying mechanisms, ecological functions, and ecosystem services* (Workshop). International University of Andalusia. Baeza (Spain). Oral communication
5. S. Varela, **A. López-García**, J.M. Barea, C. Azcón-Aguilar. **Oct 2014**. Composition of the communities of arbuscular mycorrhizal fungi harbored in roots, spores and hyphae associated to plant species characteristic of Mediterranean environments. *International Congress on Mycorrhizae*. Marrakech (Morocco). Oral communication
6. S. Varela, **A. López-García**, E. Berrio, J.M. Barea, C. Azcón-Aguilar. **Sep 2013**. Phylogenetic analysis of the diversity of arbuscular mycorrhizal fungal propagules associated to characteristic plant species from Sierra de Baza Natural Park (Granada, Spain). *II Iberoamerican conference of beneficial plant-microbe-environment interactions (IBEMPA)*. Sevilla (Spain). Poster
7. C. Azcón-Aguilar, J.M. Barea, **A. López-García**, S. Varela-Cervero. **Mar 2013**. Studies on the community structure of arbuscular mycorrhizal fungi associated to characteristic woody plant species in Mediterranean environments. *Soil biodiversity functions and environmental services in Mediterranean forests: Effects of land use on soil trophic webs under an uncertain climate* (Seminar). Centre for Ecological Research and Forestry Applications. Barcelona (Spain). Oral communication
8. S. Varela-Cervero, E. Berrio, **A. López-García**, J.M. Barea, C. Azcón-Aguilar. **Feb 2013**. Analysis of the diversity and colonization capacity of the different propagules of arbuscular mycorrhizal fungi in Mediterranean environments (Sierra de Baza, Granada, Spain). *IV Congress of Biodiversity*. Bilbao (Spain). Poster
9. E.B. Allen, M.F. Allen, N.C. Ellstrand, K. Silvera, A. Sanders, R.A. Redak, C. McDonald, C.E. Bell, J. Aronson, J.M. Barea, R. Blank, M. Cristofaro, C. Cruz, E. Manrique, S. Gokhan, J. Kashefi, **A. López-García**, J.D. Miranda, Y. Nemli, R. Ochoa-Hueso, E. Pérez, I. Querejeta, B. Rector, A. Roldán, O. Secmen, R. Sforza, S. Türkseven. **Sep 2011**. Determining the Mediterranean origins of invasive red brome in California: a preliminary assessment to understanding plant-soil feedbacks. *XII International Mediterranean Ecosystems Conference (MEDECOS)*. Los Angeles (California, USA). Poster
10. **A. López-García**, J.D. Miranda, S. Hempel, M.C. Rillig, J.M. Barea, C. Azcón-Aguilar. **Jun 2011**. Analysis on the structure of mycorrhizal fungi associated to yew (*Taxus baccata* L.) in Sierra de Baza Natural Park (Granada). III National Congress of Biodiversity. Granada (Spain). Oral communication