

Part A. Personal Information

DATE	20/11/2018
------	------------

Surname(s)	Curiel Yuste	
Forename	Jorge	
Social Security, Passport, ID number	1811202N	
Sex	Male	
Age	47	
Researcher codes	WoS Researcher ID (*)	A-6438-2011
	SCOPUS Author ID(*)	6507264994
	Open Researcher and Contributor ID (ORCID)	0000-0002-3221-6960

(*) At least one of these is mandatory

A.1. Current position

Post/ Professional Category	Ikerbasque Research Professor	
UNESCO Code	2511, 2414, 2417	
Key Words	Soil microbiome, Biogeochemistry, Ecosystem Health, Climate change	
Name of the University/Institution	BC3 Basque Center fo Climate Change	
	Department/Centre	Terrestrial Ecology
	Full Address	Scientific Campus of the University of the Basque Country; 48940 Leioa
	Email Address	jorge.curiel@bc3research.org
	Phone Number	+34944014690 ext 179
Start date	1/04/2017	

A.2. Education (title, institution, date)

Year	University	Degree	Title
1998	Autonomous University of Madrid (Spain)	Master degree in Biology,	Master degree in Biology,
1999	University of Lund (Sweden)	Post-graduate course	Post-graduate course
2004	University of Antwerp (UA, Belgium)	PhD in Biological Sciences	PhD in Biological Sciences

A.3. Indicators of Quality in Scientific Production (See the instructions)

Theses directed in the last 10 years: 4

Publications: 65

Total number of citations: 2300 (WOK); 3680 (Google Scholar)

Average number of citations per total article: 47.85

Average number of citations / year period 2013-2018: 260 (WOK)

Publications in the first quartile: 42

Index h: 25 (WOK); 27 (Google Scholar)

Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)

Dr. Jorge Curiel Yuste is currently the leader of the Terrestrial Ecology Group of the BC3 (Basque Center for Climate Change) where he is IKERBASQUE Research Professor. JCY holds a PhD in Biological Sciences from the University of Antwerp (UA, Belgium) in 2004. JCY has developed its scientific activity in several internationally recognized academic institutions and laboratories such as the Biometeorology Laboratory (Biometlab) of the University of California, Berkeley (Prof. Dennis D Baldocchi, 2004-2007), the Center for Ecological Research and Forestry Applications (CREAF) of Barcelona in collaboration with Josep

Peñuelas Reixach, Francisco Lloret and Jordi Martínez Vilalta (2007-2011), or the National Museum of Natural History (MNCN, CSIC) of Madrid (2012-2016) where he led a line of Soil Ecology and Functionality. Throughout his scientific career he has been awarded with several postdoctoral grants and scholarships, including two Marie Curie IEF Intra-European Scholarships (Università Seconda di Napoli, CREAM), a "JAE postdoc" scholarship from the CSIC, a post-fellowship -doctoral "Juan de la Cierva" of the Spanish Ministry of Science (MINCINN), a postdoctoral fellowship of the "postdoctoral fellowship of the Autonomous University of Barcelona" and a "Ramón y Cajal" contract. Some of the scientific contributions of Dr. Jorge Curiel Yuste are: (1) Biological CO₂ emissions from soil (soil respiration) as an important contributor to total ecosystem carbon budget; (2) Ecological interactions between plant and soils and their functional importance to understand the resilience/vulnerability of terrestrial ecosystems to human-made perturbations; (3) The biodiversity and multifunctionality of the soil microbiota and its sensitivity to climate changes (e.g. drought), management intensity and changes in use (habitat fragmentation) and forest die-off.

Part C. Relevant accomplishments

C.1. Publications

More than 50 articles in SCI journals, 7 book chapters, 4 articles in non-SCI journals, 5 dissemination articles or similar. Selection of publications (last 5 years):

- 1) Alexandra Rodríguez, Jorge Durán, Ana Rey, Ioanna Boudouris, Fernando Valladares, Antonio Gallardo, **Jorge Curiel Yuste**. (2019) Interactive effects of forest die-off and drying-rewetting cycles on C and N mineralization. *Geoderma* 333., DOI:10.1016/j.geoderma.2018.07.003
- 2) Dulce Flores-Rentería, Ana Rincón, Teresa Morán-López, Ana-Maria Hereş, Leticia Pérez-Izquierdo, Fernando Valladares, **Jorge Curiel Yuste** (2018) Habitat fragmentation is linked to cascading effects on soil functioning and CO₂ emissions in Mediterranean holm-oak forests. *PeerJ*. DOI:10.7717/peerj.5857
- 3) Ana-Maria Hereş, Margot W. Kaye, Elena Granda, Raquel Benavides, Ana Lázaro-Nogal, Alfredo Emilio Rubio-Casal, Fernando Valladares, **Jorge Curiel Yuste** (2018) Tree vigour influences secondary growth but not responsiveness to climatic variability in Holm oak. *Dendrochronologia* 49:68-76., DOI:10.1016/j.dendro.2018.03.004
- 4) Dulce Flores-Rentería, **Jorge Curiel Yuste**, Fernando Valladares, Ana Rincón. (2018) Soil legacies determine the resistance of an experimental plant-soil system to drought. *Catena* 166:271-278., DOI:10.1016/j.catena.2018.04.011
- 5) María José Fernández, **Jorge Curiel Yuste**, Barbara Kitzler, Carlos Ortiz, Agustín Rubio. (2018) Changes in litter chemistry associated with global change-driven forest succession resulted in time-decoupled responses of soil carbon and nitrogen cycles. *Soil Biology and Biochemistry*; 120., DOI:10.1016/j.soilbio.2018.02.013
- 6) **Jorge Curiel Yuste**, Ana-Maria Hereş, Gerardo Ojeda, Andrea Paz, Camila Pizano, Daniel García-Angulo, Eloisa Lasso (2017) Soil heterotrophic CO₂ emissions from tropical high-elevation ecosystems (Páramos) and their sensitivity to temperature and moisture fluctuations. *Soil Biology and Biochemistry* 110:8-11., DOI:10.1016/j.soilbio.2017.02.016
- 7) Josep Barba, **Jorge Curiel Yuste**, Rafael Poyatos, Ivan A. Janssens, Francisco Lloret. (2016) Strong resilience of soil respiration components to drought-induced die-off resulting in forest secondary succession. *Oecologia* 182(1)., DOI:10.1007/s00442-016-3567-8
- 8) Dulce Flores-rentería, Ana Rincón, Fernando Valladares, **Jorge Curiel Yuste**. (2016). Agricultural matrix affects differently the alpha and beta structural and functional diversity of soil microbial communities in a fragmented Mediterranean holm oak forest. *Soil Biology and Biochemistry* 92., DOI:10.1016/j.soilbio.2015.09.015
- 9) **J. Curiel Yuste**, A.J. Fernandez-Gonzalez, M. Fernandez-Lopez, R. Ogaya, J. Penuelas, J. Sardans, F. Lloret. (2014) Strong functional stability of soil microbial communities under semiarid Mediterranean conditions and subjected to long-term shifts in baseline precipitation. *Soil Biology and Biochemistry*;69:223-233., DOI:10.1016/j.soilbio.2013.10.045
- 10) **J. Curiel Yuste**, Antonio José Fernandez-Gonzalez, Manuel Fernandez-Lopez, Romá Ogaya, Josep Penuelas, Francisco Lloret. (2014) Functional diversification within bacterial lineages promotes wide functional overlapping between taxonomic groups in a Mediterranean forest soil. *FEMS Microbiology Ecology* 90:54-67

C.2. Research Projects and Grants

This researcher has participated as a researcher in several pan-european/american projects and networks (Europe and America), such as CARBOEUROFLUX, CARBOEUROPE IP, AMERIFLUX or FLUXNET. As researcher, he has been involved in 5 national funded projects in the past: "Consolider Ingenio". MONTES (2008-2013), SECASOL (CGL2009-08101, 2009-2012); GLOCHARID (Global Change in Dry Areas, managed by the "Andalusian Studies Center and global surveillance (CAESCG) Change" 2009-2013), SOILPROOF (CGL2011 - 15276-E, 2011-2014); REMEDINAL (Program of R & D activities on ecological restoration, Community of Madrid). Money as IP to date: € 350,000.

JCY has been IP of 5 finished projects: (1) 2015-2017. Vulnerability to Climate Change of Holm-oak forest: mechanisms and influence of management on ecosystem services (VERONICA; CGL2013-42271-P). Ministry of Economy and Competition (National, Spain) 170,610 €. Principal Investigator. (2) 2015-2017. Development of a remote monitoring system for greenhouse gasses and climate (SMARTGASS; CTM2013-50077-EXP). Ministry of Economy and Competition (National, Spain). € 24,000. (3) Linking soil biodiversity to ecosystem functioning: The role of micro- bes in the terrestrial climate change feedbacks (MICROCARB; FP6-2005-Mobility-5 # 041409-MICROCARB); (4) Estudio de la vulnerabilidad al cambio global de las reservas de carbono de Páramos y Bosques Secos Tropicales de Colombia. Becas Iberoamérica Jóvenes Profesores Investigadores España 2014 (Banco Santander). 9,000€; (5) Understanding the mechanistic behind soil carbon fluxes and stocks in Mediterranean ecosystems (BLACKBOXREVELATION) Ministry of Economy and Competition (National, Spain) 15,000€

Currently IP in 3 projects: (1) 2018-2020. El papel de las interacciones planta-microbiota en la resiliencia y colapso ante el Cambio climático de encinares mediterráneos (IBERYCA) CGL2017-84723-P Ministry of Economy and Competition (National, Spain) 66,000€; (2) 2018. Estrategia de protección del suelo del país vasco y cambio climático. Sociedad pública de gestión ambiental del Gobierno Vasco (IHOBE). 9,000€; (3) 2018-2019. La biodiversidad edáfica como recurso esencial para el funcionamiento de los ecosistemas y el uso sostenible de los recursos naturales (ECOSOIL) CGL2017-90635-REDT. Ministry of Economy and Competition (National, Spain) 13,000€

Currently participating as researcher in four international projects:

(1)2018-2020. Análisis de intercambio de carbono del suelo como indicador de su degradación biológica. FONDO SECTORIAL CONACYT- INEGI (S0025) (MEXICO). \$ 4.555.063; (2) 2015-2018. Dynamics of multi-species tree mortality in Romania and its impact on the soil microbiome and soil nutrients TREEMORIS. Ministry of Agriculture and Rural Development of Romania (funding application for Young research teams - pn-ii-ru-te-2014-4). € 125,000; (3) 2016-2018. Impact of climate change on the Páramo plant biodiversity, and on the ecosystem service that provides us as a carbon sink. Administrative Department of Science, Technology and Innovation (COLCIENCIA, Colombia) \$ 200,000; (4) 2017-2019. SPONFOREST. Unraveling the potential of SPONternative FORest STablishment for improving ecosystem functions and services in dynamic landscapes. Biodiversity (EU). € 125,000.

And member of the management committee of 2 COST EU actions:

(1) 2014-2018. (BIOLINK) European Union FPS COST Action FP1305 (International, Europe) Management Committee. PI of the project: Dr. Martin Lukac, University of Reading (UK); (2) 2015-2018. (KEYSOM) ESSEM COST Action ES1406. (International, Europe). Management Committee. PI of the project: Dr. Juan Jimenez (IPE, CSIC).

C.5. Teaching activity, supervisor of practices and master thesis management

-Visiting Professor in the "Master in Terrestrial Ecology ", module of "Directed Readings" of the Autonomous University of Barcelona. Courses 2008/2009, 2009/2010 and 2010/2011:

-Supervision of 6 Master Thesis: (5 completed, 1 in process): "Josep Barba i Ferrer (2010), Master of Terrestrial Ecology and Biodiversity Management (Universitat Autònoma de Barcelona); Eva Pereira (2014), Master of Terrestrial Ecology and Biodiversity Management (Universitat Autònoma de Barcelona); Daniel García Angulo (2014), Master of Microbiology (Universidad Complutense de Madrid); Andrea del Carmen Orejarena Solano. Master of Restoration of Ecosystems. (University of Alcalá de Henares). 2016; Sonia Novella Ortiz Master of Restoration of Ecosystems. (University of Alcalá de Henares). 2017; Javier Gil Argandoña Master program "Natural Resources Management and Ecological Engineering", Universität für Bodenkultur (BOKU), Vienna, Austria. In process;

C6. Direction of doctoral theses.

To date 2 PhD theses already defended and another 2 are in process:

- (1). "Effect of habitat fragmentation and drought on soil microbial ecology and plant-soil relations in Mediterranean Holm-oak forest". PhD candidate: Dulce Yaahid Flores Renteria (Autonomous University of Madrid, MNCN, CSIC, Spain); 2015;
- (2). "Carbon Balance of mixed mountain forests affected by droughts and secondary succession". PhD candidate: Josep Barba i Ferrer (Autonomous University of Barcelona, CREAL, Spain). 2015
- (3). "Effect of the holm-oak die-off on the taxonomy and functioning of soil microbial communities". Daniel García Angulo, FPI Scholarship (Associated to the VERONICA project) Autonomous University of Madrid.
- (4). "Modelling the effects of climate and forest die-off over soil carbon dynamics in Mediterranean holm-oak (*Quercus ilex* L.) forests". Omar Flores. FPU scholarship Autonomous University of Madrid. In process

C7 Organization of I + D + I activities:

- (1) December 2005 - AGU Fall Meeting (San Francisco CA, USA): "Recent Advances in Soil Ecology and Their Contribution to Understanding Soil Carbon Dynamics"; (2) April 2015. European Geophysical Union (EGU) Vienna (Austria): "Understanding biological and geological sources of soil CO₂ and the principles of gas transport through the soil matrix to understand soil CO₂ effluxes"; (3) June 2015. 4th CONGRESS IBERICO (AEET) Coimbra (Portugal). "Symposium" Plant-soil interactions / Interacções planta-solo "; (4) February 2015. 1st Symposium of the Plant-Soil Interactions Group (PlanSoil). Madrid Spain).
- (5) February 2016. XVI MEDECOS & XIII AEET Conference. Seville (Spain). "Plant-Soil Interactions Symposium".

C8. Oral presentations and stays at international institutions

More than 35 oral presentations at international conferences and congresses (American Geophysical Union, European Geophysical Union, European Ecological Federation). More than 20 stays at internationally recognized institutions, of which I mention only the last ones: 2 months at the Scottish Institute for Crop Research (Dundee, United Kingdom) in 2007; 1 month stay at the University of Antwerp (Belgium) in 2009; 1 month stay at the Department of Ecology of the University of Viçosa (Minas Gerais, Brazil, 2012); three one-month stays at Universidad de los Andes (Bogotá, Colombia) in 2013, 2014 and 2017, and two one-month stays at the forestry school of the University of Brasov (Romania) in 2016 and 2017

C9 Evaluator international projects.

National Agency of Evaluation and prospective (ANEP); Fonds Wetenschappelijk Onderzoek - Vlaanderen (FWO); Natural Environment Research Council (NERC), UK; Projects of the Junta de Andalucía.

C10. Evaluator of International Scientific Journals (Referee, Last 5 years)

- **Academic editor** of PeerJ (Life, Bio, Environment and Health Sciences)
- **As reviewer: Forestry.** Tree Phys., Ag. and For. Met., For. Ecol. and Man.; **Ecology and conservation.** Global Change Biology, Ecol. Letters, Oecology, Functional Ecology, Plos One; **Soil Sciences.** Soil Biol. and Bio., Plant and Soil, Land Deg. and Dev.; **Microbial ecology** FEMS Micro.Ecol. Env. Micro., Molecular Ecology; **Ecophysiology** Env. and Exp. **Botany,** New Phytologist; **Biogeochemistry** Biogeochemistry, Biogeosciences, JGR Biogeosciences

C11. Citizen Science and dissemination.

- (1) <http://decaimientoencinar.wix.com/decaimientoencinar>; Promoter of the Observation Network of Holm-oak die-off. and the App for the geolocation of encinares affected (GeoODK, VERONICA); (2) Co-organizer of the exhibition "THE SOIL: A walk through life" (1 October 2015-31 March 2016) at the National Museum of Natural History (MNCN, CSIC); (3) Multiple appearances in radio (Onda cero, RN1) and written and digital press (ABC, El País, SYNC Agency among others) to talk about the decline of the oak forest (4) 3 publications in the journal of the MNCN "Naturalmente"; (5) Publications in the blog of "Scientific Expeditions" of the MNCN of its scientific expeditions in Colombia.