Jordi Garcia-Gonzalo CURRICULUM VITAE – 15.01.2010

PERSONAL INFORMATION

Surnames: Garcia-Gonzalo

Name: Jordi
Date of birth: 24/07/1977
Place of birth: Catalonia, Spain



CONTACT INFORMATION

FORCHANGE - Forest Ecosystem Management Under Global Change Departamento de Engenharia Florestal - Instituto Superior de Agronomia Universidade Técnica de Lisboa

Tapada da Ajuda, 1349-017 Lisboa

Portugal

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LANGUAGES

| Spanish | mother tongue | Portuguese | average level |
|---------|---------------|------------|---------------|
| Catalan | mother tongue | Finnish | elementary |
| English | excellent | | |
| French | average level | | |

EDUCATION

February 2004 – June 2007: PhD studies at the Faculty of Forest Sciences - University of Joensuu (Finland). The PhD thesis was defended on June 1st.

Title of the PhD is: Effects of management on timber production and carbon stocks in a boreal forest ecosystem under changing climate: a model based approach.

July 2005: Escola Técnica Superior d'Agricultura, University of Lleida (Spain)

M. Sc. degree in Agricultural Engineering. University of Lleida (Ingeniero Agrónomo).

September 2002 - January 2004, University of Joensuu (Finland)

M. SC. Degree (Agr. and For.) specialised in Environmental Management of forests, Faculty of Forestry, University of Joensuu.

September 2002, Escola Técnica Superior d'Agricultura University of Lleida (Spain)

M. SC. Degree in Forestry engineering at the University of Lleida (Ingeniero de Montes)

*Including one year 2001 - June 2002 which I was granted with a Socrates grant by the University of LLeida to stay one academic year at the University of Joensuu (Finland).

September 1995 – September 1999, University of Girona (Spain)

Bachelor Science in Agricultural engineering at the University of Girona (Ingeniero Técnico Agrícola).

ADITIONAL STUDIES-COURSES

2001. 19th -23rd of March. Basic course in forest fires organized by University of Madrid, Forestry department.

2001. March to June. Course about Forestry techniques organised by University of Lleida and Catalan Forestry consortium.

2007. 5th – **9th of November.** EFIMED course on Modelling Mediterranean Forest Stand Dynamics For Forest Management organised by the Instituto Superior de Agronomia (Lisbon, Portugal) and EFIMED.

2009 – 2010. Programming with Microsoft Visual Basic .NET. GALILEU (Lisbon, Portugal).

WORKING EXPERIENCE

CURRENT POSITION

31st May 2008....-: Technical University of Lisbon. Instuto Superior de Agronomia. Lisbon, Portugal

Post-doc researcher position: Working within the FORCHANGE (Forest Ecosystem Management Under Global Change) group at the Departamento de Engenharia Florestal - Instituto Superior de Agronomia. Lisbon (Portugal).

Aiming at the development of methods for forest management including economic, social and ecological aspects in a context of global change (climate, socio-economic, political changes...). Different aspects are taken into account, for example: agro-forestry systems, multiple products, services and sustainability, different risks (fires), multiple ownership systems... In this context, one of the objectives is to develop information and decision support systems (DSS) for forest project evaluation and for strategic, tactical and operational management planning.

Currently participating as a researcher in several projects:

- 2009 2010. Coordinator at ISA of the project MASSIF "Development of a methodology for the analysis of socioeconomic impact of forest fires and economic efficiency of fire management".(Projecto do 7° Programa Quadro, project number 384398). (December 2008-December 2010). Coordenator: EFIMED. Global budget: 433.5 k⊕udget for ISA: 20.8 k€
- 2009 2010. Post-doc Researcher at MOTIVE. (Projectdo 7° Programa Quadro-ENV-2008-1 n° 266544). 4 year project starting in April 2009 Coordinator: Universidade de Freiburg. Global budget: 9,070.9k € Budget at ISA: 573.6k €
- 2010. Participating in COST Action FP0804 FOREST MANAGEMENT DECISION SUPPORT SYSTEMS FORSYS (2010-2014).
- 2010. Participating in the project AdvancinG Mediterranean FOrest Research CApacities (AGORA),(FP7 REGPOT-2009-2. International Co-operation- 4 years project).

Lecturer at ISA of:

- Natural Resources Management course and Forest Management
- Certification course at the Instituto Superior de Agronomia. Technical University of Lisbon (Portugal).

PREVIOUS WORKING EXPERIENCE

1st January – 31st May 2008: European Forest Institute, Joensuu, Finland

Researcher: Working at EFI as a post-doc at different projects: i) researcher at EFORWOOD project. EFORWOOD - Tools for Sustainability Impact Assessment of the Forestry-Wood Chain; FP6-518128-2, 2005-2009, ii) Project coordinator in Climate change tender -DG AGRICULTURE AND RURAL DEVELOPMENT TENDER N° AGRI-2007-G4-06.

1st February 2004 – December 2007*: Faculty of Forestry, University of Joensuu, Finland

Researcher (PhD student position February to June 2007 and Post doc position June to December 2007): Working within the Centre of Excellence for Forrest Ecology and Management (2004-2005), led by Prof. Seppo Kellomäki, Faculty of Forestry, University of Joensuu, Finland.

* This period includes a PhD researcher position within the Graduate School in Forest Sciences 1.01-2006 - 31.12.2007 and PhD scholarship from the Faculty of Forestry.

**During 2007 I was also part time working at the European Forest Institute, Joensuu (Finland)

Researcher working within the EFORWOOD project. EFORWOOD - Tools for Sustainability Impact Assessment of the Forestry-Wood Chain; FP6-518128-2, 2005-2009.

July 2003 - September 2003, July 2002 - September 2002, and July 2001 - October 2001:

Department of Agriculture in plant health, Government of Catalonia

Technique against Erwinia Amylovora disease.

September 2002 – May 2003: European Forest Institute (EFI), Finland

Researcher Trainee in Forest ecosystem and management area with the following research tasks: Management guidelines for different countries in Europe to develop the EFISCEN model system.

June - October 2000: Department of Forest Fires Prevention, Government of Catalonia Forest fireman.

SCIENCES AREAS OF INTEREST

Methods for forest management including economic, social and ecological aspects in a context of global change (climate, socio-economic changes...).

Development of information and decision support systems (DSS) for forest project evaluation and for strategic, tactical and operational management planning.

Development of methodologies to formulate forest management plans targeting multiple objectives and multiple decision makers and different risks (e.g. fires).

COMPUTER SCIENCES

Programming (Visual Basic).

Knowledge of Word, Excel, Acces, Internet, Windows

Knowledge of AutoCAD

Knowledge of GIS (Idrisi, Arc View and Arc Map)

PUBLICATION LIST

1. Papers in internationally reviewed journals (In print/accepted)

Garcia-Gonzalo, J., Effects of management on timber production and carbon stocks in boreal forest ecosystem under changing climate: a model based approach. 2007. Thesis dissertation. Dissertationes Forestales 42, The Finish Society of forest Science. ISBN 978-951-651-173-6. http://www.metla.fi/dissertationes/df42.htm

Garcia-Gonzalo, J., Peltola, H., Briceño-Elizondo, E., Kellomäki, S. 2007. Changed thinning regimes may increase carbon stock under climate change: A case study from a Finnish boreal forest. Climatic Change. Volume 81, Issues 3-4, pp 431-454. http://dx.doi.org/10.1007/s10584-006-9149-8

Garcia-Gonzalo, J., Peltola, H., Zubizarreta-Gerendiain, A., and Kellomäki, S. 2007. Impacts of forest landscape structure and management on timber production and carbon stocks in the boreal forest ecosystem under changing climate. Forest Ecology and Management Volume 241, Issues 1-3, pp 243-257. http://dx.doi.org/10.1016/j.foreco.2007.01.008

Garcia-Gonzalo, J., Peltola, H., Briceño-Elizondo, E., Kellomäki, S. 2007. Effects of climate change and management on timber yield in boreal forests, with economic implications: A case study. Ecological Modelling, Volume 209, Issues 2-4, pp 220-234. http://dx.doi.org/10.1016/j.ecolmodel.2007.06.021

Garcia-Gonzalo, J., Jäger, D., Lexer, M.J., Peltola, H., Briceño-Elizondo, E., and Kellomäki, S. 2008. Does climate change affect optimal planning solutions for multi-objective forest management?. Allgemeine Forst und Jagdzeitung (AFJZ) – German Journal of Forest Research. Volume 179. Issue 5-6/2008, pp 78-95.

Briceño-Elizondo, E., **Garcia-Gonzalo, J.**, Peltola, H., Matala, J., Kellomäki, S. 2006. Sensitivity of growth of Scots pine, Norway spruce and silver birch to climate change and forest management in boreal conditions. Forest Ecology and Management. Volume 232, Issues 1-3, pp 152-167. http://dx.doi.org/10.1016/j.foreco.2006.05.062

Briceño-Elizondo, E., **Garcia-Gonzalo, J.**, Peltola, H., Kellomäki, S., 2006. Carbon stocks and timber yield in two boreal forest ecosystems under current and changing climatic conditions subjected to varying management regimes. Environmental Science and Policy, Volume 9, Issue 3, pp 237-252. http://dx.doi.org/10.1016/j.envsci.2005.12.003

Briceño-Elizondo, E., Jäger D., Lexer, M., **Garcia-Gonzalo, J**., Peltola, H., Kellomäki, S. 2008. Multi-criteria evaluation of multi-purpose stand treatment programmes for Finnish boreal forests under changing climate. Ecological Indicators, Volume 8, Issue 1, pp 26-45. http://dx.doi.org/10.1016/j.ecolind.2006.12.001

Zeng, H., Peltola, H., **Garcia-Gonzalo, J.**, and Kellomäki, S. 2010. The effects of forest structure on the risk of wind damage in a boreal forest ecosystem. Annals of forest science. Volume 67, Number 1, 8pp. http://dx.doi.org/10.1051/forest/2009090

Marcus Lindner, Tommi Suominen, Taru Palosuo, **Jordi Garcia-Gonzalo**, Peter Verweij, Sergey Zudin, Risto Päivinen. 2009. ToSIA – A Tool for Sustainability Impact Assessment of Forest-Wood-Chains. Ecological modelling. Volume 12, issue 2, pp 111-120. http://dx.doi.org/10.1016/j.ecolmodel.2009.08.006

Lindner, M, Maroschek, M., Netherer, S., Kremer, A., Barbatie, A., **Garcia-Gonzalo, J.**, Seidl, R., Delzon, S., Corona, P., Kolström, M., Lexer, M.J., Marchetti. M. 2010. Climate change impacts, adaptive capacity, and vulnerability of European forest ecosystems. Forest Ecology and Management. Volume 259, Issue 4, pp 698–709. http://dx.doi.org/10.1016/j.forpol.2009.09.002

Borges P.J., Fragoso R., **Garcia-Gonzalo J**., Borges J. G., Marques S., Lucas, M.R. 2010. Assessing impacts of Common Agricultural Policy changes on regional land use patterns with a decision support system. An application in Southern Portugal. Forest Policy and Economics. Volume 12, issue 2, pp 111-120. http://dx.doi.org/10.1016/j.forpol.2009.09.002

2. Papers in books

Garcia-Gonzalo, J., Lexer, M.J., Peltola, H., Kellomäki, S. Designing a forested landscape in Finland under different climate scenarios. In von Gadow, K and Pukkala, T (Eds), Designing Green Landscapes. SpringerPub. ISBN: 978-1-4020-6758-7 (Print) 978-1-4020-6759-4 (Online). Volume 15: 215-241. http://dx.doi.org/10.1007/978-1-4020-6759-4_9

Garcia-Gonzalo, J., Peltola, H., Zubizarreta-Gerendiain, A., and Kellomäki, S. Analysing the effects of forest structure on carbon stocks and timber production under changing management and climate. In Bravo, F., Lemay, V., von Gadow, K., Jandl, R. (Ed) 2008. Climate Change and Forest Management, Springer Pub. ISBN: 978-1-4020-8342-6 (Print) 978-1-4020-8343-3 (Online). Volume 17: 195-218. http://dx.doi.org/10.1007/978-1-4020-8343-3-12

3. Papers in conference/workshops in proceedings

Garcia-Gonzalo, J., Jäger, D., Lexer, M., Peltola, H., Briceño-Elizondo, E., Kellomäki, S. 2006. Optimisation of Forest Management Under Current and Changing Climate: a case study of a Finnish Management Unit. Proceedings to the International Conference: "Managing Forest Ecosystems: the Challenges of Climate Change". Palencia, Spain. April 3rd to 7th -2006.

4. Papers in Faculty publications and reports

Badeck, F-W., Fürstenau, C., Lasch, P., Peltola, H., **Garcia-Gonzalo, J.**, Briceño-Elizondo, E., Kellomäki, S., Lexer, MJ., Jäger, D., Lindner, M., Thiel, D.K., Kaipainen, T., Lehikoinen, S.J., and Feliu, J., 2005. Kellomäki, S. Chapter 7. Adaptive Forest Management at Scale of Management Unit. In: Kellomäki, S. & Leinonen, S. (eds). Management of European Forests under Changing Climatic Conditions. Research Notes 163, University of Joensuu, Forest Faculty, pp. 315-382.

Marcus Lindner, **Jordi Garcia-Gonzalo**, Marja Kolström, Tim Green, Ricardo Reguera, Michael Maroschek, Rupert Seidl, Manfred J. Lexer, Sigrid Netherer, Axel Schopf, Antoine Kremer, Sylvain Delzon, Anna Barbati, Marco Marchetti, Piermaria Corona. 2008. Impacts of Climate Change on European Forests and Options for Adaptation. AGRI-2007-G4-06. Report to the European Commission Directorate-General for Agriculture and Rural Development. EFI publisher. http://ec.europa.eu/agriculture/analysis/external/euro forests/index en.htm

OTHER ACTIVITIES: PARTICIPATION IN INTERNATIONAL/NATIONAL WORKSHOPS/CONFERENCES

Conference: Carbon budget of Finnish forests from 1920 to 2000. Finnish Forest Research Institute and EFI, in Helsinki, (Finland), 23.03.2004.

International conference on Modeling Forest Production. Austria University of Natural Resources and Applied Life Sciences (Universität für Bodenkultur Wien). 19-22.04.04 at Vienna, Austria. **Oral presentation**.

IUFRO Div 4 International Conference: "Managing Forest Ecosystems: the Challenges of Climate Change" from April 03-07, 2006 at the University of Valladolid (Palencia), Spain. **Oral presentation**.

Conference: Gestión Sostenible de los Bosques y Cooperación al Desarrollo: Herramientas para el alivio de la pobreza. Centre Tecnològic Forestal de Catalunya, 20-24.11.2006, Solsona (Lleida) – Spain.

IUFRO International Conference: "Forest Growth and timber quality: Crown Models and Simulation Methods for Sustainable Forest Management" in Portland, Oregon, USA from August 7-10, 2007. **Poster presentation**.

EFI 2008 Annual Conference on "Adaptation of Forest Landscape to Environmental Changes", 17-19 September, Orvieto, Italia. **Poster presentation**.

13th Symposium on Systems Analysis in Forest Resources, Charleston, South Carolina, USA. From May 26th to May 29th, 2009. Symposium sponsored by the Society of American Foresters E4 Working Group (Management Sciences and Operations Research). Title of the oral comunication: Integrating fire risk in stand management scheduling. An application to Mairtime pine stands in Portugal. **Garcia-Gonzalo**, **J**., Botequim, B., Marques, S., Borges, J.G., and Oliveira, M. M. **Oral Presentation**.

International workshop: EURO Summer Institute 2009: "OR in Agriculture and Forest Management" from 27^{th} July -7^{th} August in Lleida and Solsona (Spain).

STAYS IN INTERNATIONALLY RECOGNIZED CENTRES

CENTRE: European Forest Institute

PLACE: Joensuu COUNTRY: Finland YEAR: 2002-2003 LENGHT: 9 months

TOPIC: Forest guidelines for forest planning to be used in EFISCEN model

POSITION: Training researcher. Epsilon grant agreed by the Catalan Government and Leonardo grant by the

Spanish Government in order to develop a practical training at the European Forest Institute (EFI)

in Joensuu (Finland).

CENTRE: Austria University of Natural Resources and Applied Life Sciences. BOKU

PLACE: Vienna COUNTRY: AUSTRIA YEAR: 2006 LENGHT: 15 days

TOPIC: Analysing data for an article about multi-objective optimisation of forest planning under climate

change.

POSITION: Guest researcher

CENTRE: University of Joensuu

PLACE: Joensuu COUNTRY: Finland YEAR: April 2009 LENGHT: 15 days

TOPIC: Alternative approaches to address risk in stand-level management

POSITION: Guest researcher with a COST STSM grant