

## *CURRICULUM VITAE*

L U I S M E N D E S G O D I N H O M I L H E I R I Ç O F O N T E S

### PERSONAL INFORMATION

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- Marital status: Married
- Nationality: Portuguese
- Date of birth: 28/01/1972

### CURRENT STATUS

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Research scientist (Investigador auxiliar) at the Forest Research Centre / Centro de Estudos Florestais (CEF) since 2008. Research on forest process-based and hybrid models focusing on several main forest tree species growing in Portugal.

### ACADEMIC BACKGROUND

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Degree: Doctor of Philosophy (D.Phil.)  
Institution: Oxford University, England  
Date: January 1999 - October 2002.  
Thesis: “Douglas fir’s [*Pseudotsuga menziesii* (Mirb.) Franco] performance, constraints and potential in Portugal”  
Funding: Fundação para a Ciência e Tecnologia, PRAXIS XXI / 18258 /98.

Degree: Master of Science (M.Sc.)  
Institution: Oxford University, England  
Master: “Forestry and its relation to Land Use”  
Date: September 1997 - September 1998.

Degree: Licenciatura em Engenharia Florestal (Forestry Engineering).  
Institution: Instituto Superior de Agronomia., Universidade Técnica de Lisboa (Technical University of Lisbon).  
Date: October 1990 - January 1996.  
Thesis: Construção de uma base de dados para sistemas de produção florestal de eucalipto

### SCIENTIFIC AND PROFESSIONAL EXPERIENCE

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Date: 2002-  
Researcher from FORCHANGE (Forest ecosystem management under a global change), which is one of the research areas from Centro de Estudos Florestais (CEF;Forest Research Centre). This research group is currently focused in the scientific areas related with the development of process-based models. In addition, work as been carried out in the hybridization of process based models with the classical empirical models and analysis of carbon stocks in the Portuguese forest ecosystems.

Date: 2007-

(Short Term Scientific Meeting) STSM coordinator from COST Action FP0603: Forest models for research and decision support in sustainable forest management.

Date: 2005-2008

Portuguese National Delegate to the COST Action e42: Growing Valuable Broadleaved Tree Species.

Date: 2002-03

Carried out a research project in collaboration with Prof. José Tomé e Prof. Margarida Tomé at Instituto Superior de Agronomia, Universidade Técnica de Lisboa (Technical University of Lisbon) regarding modeling the productivity of *Eucalyptus globulus* in relation with soils and climate.

Date: 1996-97

Project analyst at Instituto de Desenvolvimento e Apoio a Agricultura e Pescas (IFADAP; Portuguese government institution for financial support to forestry) in the regional headquarters at Santarém. The work regarded the assessment of forestry project applications for funding, as well as monitoring of on-going projects in the field.

During this work, a report was written which evaluated the projected costs practiced per tree species and per region at National level. This report quantified costs within and between regions per species showed the existence of discrepancies on project evaluation within and between regions. Thus, it was a tool for the improvement of the protocol for project assessment practiced at the time.

## THESIS

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Fontes, L. (2002). The performance, constraints and potential of Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco] in Portugal. Pages 241. Oxford Forestry Institute. Department of Plant Sciences. University of Oxford, Oxford.

Fontes, L. M. G. M., (1998) Investigation of Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco] performance and constraints in Portugal. Oxford Forestry Institute. Department of Plant Sciences. University of Oxford, Oxford.

Fontes, L. M. G. M., (1995) Construção de uma base de dados para sistemas de produção florestal de eucalipto. Relatório do trabalho de fim de curso de Engenharia Florestal, Lisboa.

## PAPERS IN SCIENTIFIC JOURNALS WITH REFEREES

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António, N., Tomé, M., Soares, P., Tomé, J., Fontes, L., (2007) "Effect of tree, stand, and site variables on the allometry of *Eucalyptus globulus* tree biomass" Canadian Journal of Forest Research 37 (5): pp. 895-902

Fontes, L., Landsberg, J., Tomé, J., Tomé, M., Pacheco, C., Soares, P. and Araujo, C. (2006) "Calibration and testing of a generalized process-based

model for use in Portuguese eucalyptus plantations” Canadian Journal of Forest Research 36 (12):pp. 3209-3221

Fontes L., Tomé, M., Thompson, F., Yomans, A., Sales Luis, J., and Savill, P. (2003) “Modelling Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco] site index from site factors in Portugal”. Forestry 76 (5): pp. 491-507

Fontes, L., Tomé, M., Coelho, M., Wright, H., Sales Luis, J., and Savill, P. (2003) “Modelling dominant height growth of Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco] in Portugal”. Forestry 76 (5): pp. 509-523

Fontes, L., Savill, P., Sale Luis, J., and Harris, S., (2003) “ Identification of the origin of Portuguese Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco] provenances”. *Silvae Genetica* 52 (5-6) 181-300

## COMUNICATIONS

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Gracia C., Bontemps J.D., Fontes L., Kramer K., Roetzer T., (2009) “Models adapted for changing forests in a changing environment” COST Action FP0603. Forest models for research and decision support in sustainable forest management. WG1 meeting, Lisbon Portugal

Fontes L. and Tomé, M. (2009) “Forest models for research and decision support in sustainable forest management” COST Forests, their Products and Services Domain Committee (DC FPS), Annual Progress Conference. Zagreb, Croatia.

Fontes L. and Tomé, M. (2008) “Forest simulation models in Portugal: main developments and challenges” 1<sup>st</sup> Workshop COST Action FP0603 Forest models for research and decision support in sustainable forest management. Vienna, Austria.

Fontes L. (2003) “Forest modelling and wood quality in Portugal” adHOQ - Working group for modelling wood quality. German Union of Forest Research Organisations (DVFFA). Munich, Germany.

Fontes L., Tomé, M., Thompson, F., Yomans, A., Sales Luis, J., and Savill, P. (2003) “A influência dos factores de estação na produtividade da *Pseudotsuga* (*Pseudotsuga menziesii*) em Portugal” Apresentação no ciclo de seminários CEABN/DEF, Lisboa, Portugal.

Fontes L. (2000) “Modelling dominant height growth of Douglas fir (*Pseudotsuga menziesii*) in Portugal” Oxford Forestry Institute. Oxford University, United Kingdom.

Fontes, L. M. G. M., (1992) “Development of a data base for forestry production systems” oral presentation at the 3rd Meeting of Thinning Management. Estoril, Portugal.

## POSTERS

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Fontes L. and Tomé, M. (2009) “Forest models for research and decision support in sustainable forest management” COST Forests, their Products and Services Domain Committee (DC FPS), Annual Progress Conference. Zagreb, Croatia.

L. Fontes, M. Tomé and M. Baptista Coelho (2008) “Biomass equations for

*Eucalyptus globulus* in Portugal: an assessment of carbon involved in forest harvesting”. Forest Adaptation 2008. Adaptation of Forests and Forest Management to Changing Climate with Emphasis on Forest Health: A Review of Science, Policies, and Practices. Umeå, Sweden.

- P. Soares, J. Loff, P. Borges, A. Rodrigues, S. Marques, L. Fontes, J. G. Borges and M. Tomé. (2007) “Impact of land use and climatic changes on pulpwood and carbon sequestration sustainability at the landscape level.” International Scientific Conference: Forest Growth and Timber Quality: Crown Models and Simulation Methods for Sustainable Forest Management, Portland, Oregon, USA.
- L. Fontes, S. Cerasoli, J. Mateus, J. Tomé, M. Tomé, G. Pita, and J. Santos Pereira (2006) “3-PG process-based model and flux measurements in *Eucalyptus globulus* Labill. in Portugal.” International Congress on Cultivated Forests. Session: Plantations and biodiversity; Plantations and carbon; Plantations and water. Institute of Silviculture at Freiburg University and the European Institute of Cultivated Forests, Bilbao, Spain.
- P. Soares, M. Tomé, J. Tomé, L. Fontes, J. G. Borges, Z. Loff, C. Araújo, J. P. Pina, L. Lemos, C. Sousa, H. Feith.(2006) “Modelling Pulp Wood and Carbon Sequestration Sustainability of Eucalyptus Plantations at Landscape Level.” International Meeting Managing Forest Ecosystems: the Challenges of Climate Change. Univ. Valladolid, Palencia, Spain
- Fontes, L., Tomé, M., Pretzsch, H., Roetzer, T., Landsberg, J., (2005) “Evaluation of long term performance of 3-PG” XXII IUFRO World Congress. Brisbane. Australia.
- Fontes, L., Tomé J., Tomé, M., Cortiçada, A., Faias, S., Soares, P., Pacheco, C. A., Araújo C. (2005) Performance do modelo 3-PG para plantações de *Eucalyptus globulus* em Portugal. V Congresso Florestal Nacional. Viseu. Portugal
- Fontes, L., Tomé, M., Sales Luis J., e Savill, P., (2005) Modelação da produtividade da pseudotsuga [*Pseudotsuga menziesii* (Mirb.) Franco ] em função dos factores de Estação. V Congresso Florestal Nacional. Viseu. Portugal
- Fontes, L., Tomé J., Tomé, M., Cortiçada, A., Faias, S., Soares, P., Pacheco, C. A., Araújo C. (2004) “Calibration of 3-PG for *Eucalyptus globulus* plantations in Portugal” *Eucalyptus in a Changing World. International IUFRO Conference of the WP2.08.03 on Silviculture and Improvement of Eucalypts*. Aveiro, Portugal.
- Pacheco, C. A., Tomé, M., Fontes, L., Soares, P., Tomé, J. (2004) “Análise da produtividade do eucalipto (*Eucalyptus globulus* Labill.) em função de factores de estação.” I Congresso Ibérico da Ciência do Solo. Bragança. Portugal
- António, N., Tomé, M., Tomé, J., Soares, P., Fontes, L. (2004) “Tree biomass equations for *Eucalyptus globulus* in Portugal” *Eucalyptus in a Changing World. International IUFRO Conference of the WP2.08.03 on Silviculture and Improvement of Eucalypts*. Aveiro, Portugal.

Tomé, J., Tomé, M., Fontes, L., Soares, P., Pacheco, C. A., Araújo C (2004) “Testing 3PG for *Eucalyptus globulus* plantations in Portugal” IUFRO International Conference on Modelling Forest Production, Vienna, Austria.

#### OTHER PUBLICATIONS

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Tomé, J Tomé M, Fontes, L Soares, P, Pacheco, C, Araújo, C (2004) “Testing 3pg with irrigated and fertilized plots established in *Eucalyptus globulus* plantations in Portugal” Proceedings of the International Conference on Modelling Forest Production, Vienna, Austria

Fontes, L. M. G. M., (1997) Análise de custos de projectos de investimento florestal no âmbito da 2a campanha do Programa de Desenvolvimento Florestal - PDF - 95/96. Relatório do estágio formal que permitiu obtenção de título de membro da Ordem do Engenheiros, Santarém.

#### REFERENCE LETTERS

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Available upon request