CURRICULUM VITAE

DIMITRIS ZIANIS

**Address Mobile:** +30-6939438860

Agricultural Univ. of Athens **e-mail**: zianis@aua.gr

Department of Forestry & **Date of birth:** 21/06/1974

Management of Natural Environment **Military Service**: Fulfilled

Dimokratias 3

36100, Karpenisi

GREECE

**EDUCATION**

**University of Edinburgh (UK)** **1999-2003**

Diploma of Philosophy in Science

Thesis: *The Size-Biomass Allometry of Forest Trees: A Global Meta-analysis,*

*Novel Methods for Estimating Forest Biomass and a case study of Fagus moesiaca Cz*.

Supervisors: Dr. Maurizio MENCUCCINI, Prof. Jonh GRACE.

**University of Aberdeen (UK)**  **1998-1999**

M.Sc. in Forest Ecology and Management.

# Dissertation: *Assessing the natural regeneration of P. heldreichii Chist with*

# *the use of GIS: A case study in Metsovo forest, Greece.*

Supervisors: Dr. Andrew CAMERON, Dr. Gary C.CLARKE

**Technological Education Institute of Kavala (GREECE)** **1993-1997**

BSc (Hons) in Forestry.

# Dissertation: *The Use of Arc/Info in Forest Management: The case study*

# *of Korilovos Forest, Drama.*

Supervisors: G. KALOKARDIS, Prof. Dr. Ν. ELEFTHERIATHIS

**LANGUAGES**

Greek (mother tongue), English (fluent), First Certificate in English, (Univ. Cambridge)

**SEMINARS**

Management of Environmental data with Geographic Information Systems

(G.I.S.) from National Center of Public Adminstration **Nov. 2012**

**AWARDS**

**April 1998:** Scholarship from National Institute of Scholarships for post-graduate and PhD in UK after competitive exams in Forest Management, Forest Biometry, Forest Protection and English language.

**July 2017:** Certificate of outstanding contribution in Reviewing (ELSEVIER, Amsterdam)

**SCIENTIFIC AND TECHNICAL SKILLS**

During my postgraduate research in forest ecology and management I become familiar with a variety of data analysis techniques, including non-parametric tests (chi-square, Kruskal-Wallis), model I and model II regression, nested ANOVA, log-linear modelling, non-linear models, and analysis based on Bayes theorem and fractal geometry.

Experience was also gained through nutrient analysis of tree tissues (Kjeldahl method) as well as tree growth estimation using annual rings. I have also used PCA-2000 instrument for measuring leaf area at stand level and GPS systems. I am familiar with the following software packages: Arc/Info, ArcView, QGIS, Microsoft Office, SPSS and IMAGE TOOL. Competence in R package, in WinBugs 1.4 and in Visual Basic 2008.

Experienced gained during my participation as independent researcher in several research projects related to **i)** remote sensing techniques for forest biomass estimation **ii)** Kyoto Protocol and LULUCF activities **iii)** estimation of bioenergy potential through forest biomass, **iv)** management of coastal ecosystems **vi)** modeling desertification processes and **vii)** development of European-wide database of allometric biomass and volume relationships.

Furthermore, I acted as work package leader in research projects funded by FR 7 European Union and the Greek Ministry of Rural Development gaining experience in human resources management for research purposes. During my 6-years permanent position in the Greek Forest Service I became familiar with bureaucratic and practical issues related to Forest management and public administration.

I amreviewerin the following international scientific journals: *Global Change Biology*, *Forest Ecology and Management, Annals of Botany, Silva Fennica, Trees, European Journal of Forest Research* and *PLoS* for articles related to forest biomass estimation, forest productivity, fractal geometry in forestry and modeling forest ecosystem processes. Finally, I was a member in the examination committee of MSc programme in the Mediterranean Agronomic Institute of Chania during 2007-2009 period.

# RESEARCH INTERESTS

My research is focused on the sustainable management of forest ecosystems and modeling of net ecosystem productivity of forest resources using the following approaches:

* Analysis of trees and stands based on fractal geometry
* Spatial-temporal modelling of forest dynamics
* Mechanical implications of tree growth and development
* Bayesian and classical statistical approaches
* Sustainable management of forest ecosystems

# PROFESSIONAL EXPERIENCE

**26/09/2021-present**

Assistant Professor in Agricultural University of Athens (Dept. Forestry and Management of Natural Environment)

**21/04/2016-25/09/2021**

Laboratory Assistant in TEI of Thessaly at Department of Forestry & Management of Natural Environment

**08/12/2009-20/04/2016**

Forester in permanent position with the Greek Forest Service

**ACADEMIC ACTIVITIES**

**1)** Assist. Prof. in Forest Mensuration; Biometry; Remote Sensing; Management of Protected Areas; Wetland Management; Dept. of Forestry & Magmnt of Nat. Env. (Agric. Univ. Athens) **2021-present**

**2)** Lab Ass. in Forest Mensuration; Biometry; GIS; Forest Management; TEI of Thessaly **2016-2021**

**3)** Demonstrator in Forest Mensuration (2nd year level); Tech. Educ. Inst. Larisa **2008-2009**

**4)** Invited lecturer in Management of Shrublands & Forests (MSc level); MAICh **2008**

**5)** Invited lecturer in Management of Shrublands & Forests (MSc level); MAICh **2007**

**6)** Demonstrator in Forest Management (2nd year level); Tech. Educ. Inst. Drama **2004-2005**

**7)** Lecturer in Forest Biometry (2nd year level); Tech. Educ. Inst. Larisa **2004-2005**

**8)** Demonstrator in Forest Ecology (MSc level); Univ. of Edinburgh **2002-2003**

**9)** Demonstrator in Forest Ecology (Hons level); Univ. of Edinburgh **2002-2003**

**10)** Demonstrator in Ecology (1st year level); Univ. of Edinburgh **2001-2002**

**PARTICIPATION IN RESEARCH PROJECTS AND ACTIVITIES**

**1)** 07/01/2019-06/07/2020Research Modeller in **“Forest Mensuration, Modelling and Forecasting”** group in **Forest Research** (UK).

**2)** 2014-2018: Participating in the **«PROFOUND - FP 1304 Towards robust projections of European forests under climate change»** COST action funded by EU. Coordinator Dr. Christopher REYER

**3)** 01/01/2013 – 31/12/2014: Participating in the **«The contribution of Western Greek oak silvopastoral ecosystems to the environment and to the development of local communities»** funded by TEI of Lamia, Greece. Coordinator Prof. A. PANTERA

**4)** 02/04/2009 – 01/04/2013: Participating in the **«Forest Management Decision Support Systems (FORSYS)** COST action funded by EU. Coordinator Prof. Ola ERIKSSON

**5)** 01/04/2013 – 30/11/2015: Participating in the research project **«TeleKyoto: Vegetation mapping and biomass estimation using modern remote sensing methods under the United Nations Convention on Climate Change and the Kyoto Protocol »** in Aristotle Univ. of Thessaloniki supervised by Prof. I Gitas, co-funded by EU and National Strategic Reference Framework programme.

**6)** 01/01/2008 – 01/09/2011: Scientific responsible in CEUBIOM project “**Classification of European Biomass Potential for Bioenergy Using Terrestrial and Earth Observations”** for MAICh. The project was funded by «European Union FP 7».

**7)** 01/09/2009 – 31/12/2009: Participating in the research project **«Developing an integrated model for monitoring, planning and sustainable management for the enhancement of protected areas»** supervised by Mr. Alkinoos Nikolaidis. The project was funded by « INTEGRA ».

**8)** 15/11/2008 – 15/05/2009: Participation in the project “ **Setting-up and developing the National System for estimating removals and emissions of greenhouse gases in the sector of LULUCF and the Kyoto Protocol**” supervised by Dr. Kalliopi Radoglou. The project was funded by the Greek Ministry of Rural Development and Food.

**9)** 01/01/2008 – 29/02/2008: Participation in STRiM project “**Remotely Accessed Decision Support System for Transnational Environmental Risk Management Project code: 5D008**” supervised by Mr. Alkinoos Nikolaidis. The project was funded by «INTERREG III B CADSES».

**10)** 25/09/2006 – 31/12/2007: Participation in ECONET-COHAST project “**Ecological Network for the promotion of convergent conservation strategies in Coastal Habitats of Community significance Project code: A.1.165**” supervised by Mr. Alkinoos Nikolaidis. The project was funded by «INTERREG III B ARCHIMED ».

**11)** 03/04/2006 - 31/08/2006: Participation in DeSurvey project “**A Surveillance System for Assessing and Monitoring of Desertification Project code: 78306**” supervised by Prof. Vas. Papanastasis. The project was funded by the European Commission VI Framework Program Global Change and Ecosystems.

**12)** 01/01/2005 – 31/12/2005: Participation in the research project “**Influence of treated waste water on the quality and quantity of agricultural products in Drama municipality Project code: 05-3-003/2**” supervised by Prof M. Lazaridou. The project was funded by ΕΠΕΑΕΚ ΙΙ.

**13)** 01/11/2003 – 31/12/2003: Research associate in METLA (**compilation of a European database**)

**14)** May 2002: Short-Term-Scientific-Mission in METLA (Finnish Forest Research Institute) funded by **COST E21 Action**.

**PUBLICATIONS**

Total citations **1020** according to Scopus.

**Peer Reviewed Journals and Books**

**1)** Dutca I., **Zianis D.,** *et**al* (2020).Allometric Biomass Models for European Beech and Silver Fir: Testing Approaches to Minimize the Demand for Site-Specific Biomass Observations
[*Forests*](https://www.x-mol.com/paper/journal/13802?r_detail=1321291396496461824) ( IF 2.221 ) Pub Date : 2020-10-26 *, DOI:*[10.3390/f11111136](https://www.x-mol.com/paperRedirect/1321291396496461824)

**2)** Spyroglou G., **Zianis D.,** Koleta I.,Radoglou, K (2019). Leaf area and foliar weight to sapwood cross sectional area models for Quercus frainetto (Ten.) in Greece. *Silva Balcanica 20: 5-20.*

**3) Zianis D**., Pantera A., Papadopoulos A., Mosquera Losada, M.R (2017). Bayesian and classical biomass allometries for open grown valonian oaks (*Q. ithaburensis* subs. *macrolepis* L.) in a silvopastoral system *Agroforesty Systems 13I:145-160.*

**4)** Galidaki G., **Zianis D**., Gitas I., Radoglou K., Karathanassi V., Tsakiri-Strati M., Woodhouse I., Mallinis G (2016) Vegetation biomass estimation with remote sensing: focus on forest and other wooded land over the Mediterranean ecosystem. *International Journal of Remote Sensing*

**5)** **Zianis D**., Spyroglou G., Tiakas E., Radoglou K (2016). Bayesian and classical models to

predict aboveground tree biomass allometry. *Forest Science 62:247-259*.

**6)** [K. Pediaditi](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/p/Pediaditi%3AK%3D.html), [M. Stanojevic](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/s/Stanojevic%3AM%3D.html), [C. Kouskouna](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/k/Kouskouna%3AC%3D.html), [M. Karydas](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/k/Karydas%3AM%3D.html), **D. Zianis**, [George P. Petropoulos](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/p/Petropoulos%3AGeorge_P%3D.html), [N. Boretos](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/b/Boretos%3AN%3D.html) (2011). A decision support system for assessing and managing environment risk cross borders. [*Earth Science Informatics 4*](http://www.informatik.uni-trier.de/~ley/db/journals/esi/esi4.html#PediaditiSKKZPB11)*: 107-115.*

**7)** Altatouri A, Pediaditi K, Petropoulos G**, Zianis D,** Boretos N (2011). Development of a decision support system for the estimation of surface water pollution risk from olive mill waste discharges. In: Zhang WJ (ed) Ecological modelling. NOVA Publishers.

**8) Zianis, D**., Xanthopoulos, G., Kalabokidis, K., Kazakis, G., Ghosn, D., and Roussou, O. (2011). Allometric equations for aboveground biomass estimation by size class for Pinus brutia Ten. trees growing in North and South Aegean Islands, Greece. *European Journal of Forest Research 13I:145-160.*

**9) Zianis, D.** (2008). Predicting mean aboveground forest biomass and its associated variance. *Forest Ecology and Management 256: 1400-1407*.

**10) Zianis, D.**, and Radoglou, K. (2006). Comparison between empirical and theoretical biomass allometric models and statistical implications in stem volume predictions. *Forestry 79: 477-487.*

**11) Zianis, D.** (2005)Aspects of Tree Allometry. In: *New Research on Forest Ecosystems.* Ed. Burk, A.R.Nova Science Pub Inc, New York, pp. 113-144.

**12) Zianis, D.**, Muukkonen, P., Mäkipää, R., and Mencuccini, M. (2005). Biomass and stem volume equations for tree species in Europe. *Silva Fennica Monographs No 4.*

**13) Zianis, D.**, and Mencuccini, M. (2005). Aboveground net primary productivity of a beech (*Fagus moesiaca* Cz.) forest: the case study of Naousa forest, northern Greece. *Tree Physiology 25: 713-722.*

**14) Zianis, D.**, and Mencuccini, M. (2004). On simplifying allometric analyses of forest biomass. *Forest Ecology and Management 187: 311-332.*

**15) Zianis, D.**, and Mencuccini, M. (2003). Aboveground biomass relationships for beech (*Fagus moesiaca* Cz.) trees in Vermio Mountain, Northern Greece, and generalised equations for *Fagus* spp. *Annals of Forest Science 60: 439-448.*

**Greek Peer Reviewed Journals**

**1)** G. Spyroglou, **D. Zianis** and K. Radoglou. Comparison of aboveground biomass estimation methods in Greek forests: The case study of Naousa state forest. SCIENTIFIC ANNALS OF THE DEPARTMENT OF FORESTRY AND MANAGEMENT OF THE ENVIRONMENT AND NATURAL RESOURCES Vol *3(1): 67-82* (in Greek with English summary).

**International Scientific Conferences**

**1)** Papadopoulos A**., Zianis D**., Pantera A., Vergos S. (2015). *Bayesian and classical models to estimate aboveground stand biomass in an oak silvopastoral system*. In: Proceedings of the 14th International Conference on Environmental Science and Technology Rhodes, Greece, 3-5 September 2015.

**2)** Pantera A., Papadopoulos A., Mantzanas K., Papanastasis V., Fotiadis G., Vrahnakis M., Alifragis D., Ispikoudis I., Parissi Z.M., Pantera M., Kandrelis S., Vergos S., Μosquera-Losada M.R., **Zianis D.,** Papadryropoulos K.G.(2015). The contribution of valonia oak silvopastoral systems in Western Greece to local development and the environment

**3) Zianis, D** and Spyroglou, G. (2009). The organization of forestry in Greece. The Latest on Mediterranean Forests No 14 pp. 3-5.

**4)** Kalaitzidis Ch., Heinzel, V., **Zianis, D.** (2009) *A review of multispectral vegetation indices for biomass estimation*. In: 29th EARSeL Symposium, MAI Chania, 15-18 June 2009, pp 201-208. Edited by Manakos, I and Kalaitzidis, Ch. (DOI: 10.3233/978-1-60750-494-8-201).

**5)** C. Kalaitzidis and **Zianis, D.** (2008). *Current state of terrestrial and earth observation techniques for biomass estimation in Europe.* In: Proceedings of the 28th symposium of the European Association of Remote Sensing Laboratories “Remote Sensing for a changing Europe”, 2-5 June 2008, Istanbul, Turkey, pp. 109-116. Edited by Derya Maktav. ISBN 978-1-58603-986-8.

**6)** Pediaditi, K., Stanojevic, M., Kouskouna, M., Karydas, C., **Zianis, D**., Boretos, N. (2008). *Development of a Web based Decision Support System for trans-boundary environmental risk assessment and management.* In: M. Sànchez-Marrè, J. Béjar, J. Comas, A. Rizzoli and G. Guariso (Eds.). “Integrating Sciences and Information Technology for Environmental Assessment and Decision Making” Proceedings of the 4th Biennial Meeting of iEMSs, Barcelona, Spain.

**7)** Koutroubas S.D., **D. Zianis** and M. Lazaridou. 2006. Wastewater and fertilization effects on corn productivity. In proc. IX European Society for Agronomy Congress, 4-7 September, Warszawa, Poland. pp 139-140.

**8) Zianis D.**, and Mencuccini M. (2001). *Allometric equations for beech trees (Fagus moesiaca Cz.) and biomass estimation along an elevation gradient in Vermio Mountain, northern Greece*. In: Radoglou, K. (ed.) “Forest Research: a challenge for an integrated European approach”. pp. 54-59. Proceedings of International Conference, NAGREF, EC, Thessaloniki, (Greece) 27/8-1/9/01.

**9)** Malounis, A., Vogiatzakis, I.N., and **Zianis, D**. (2001). *The need for a co-ordinated European forest research network and the role of Information Technology: the Pinus heldreichii example*. In: Radoglou, K. (ed.) “Forest Research: a challenge for an integrated European approach”. pp. 95-100 Proceedings of International Conference NAGREF, EC, Thessaloniki, (Greece) 27/8-1/9/01.

**ABSTRACTS**

**1)** Kalaitzidis Ch., Heinzel, V., **Zianis, D.** *A review of multispectral vegetation indices for biomass estimation*. In: 29th EARSeL Symposium, MAI Chania, 15-18 June 2009.

**2) Zianis D.**, and Mencuccini M. *On the analysis of tree allometry*. In: British Ecological Society Annual Symposium ‘Macroecology: reconciling divergent perspectives on large scale ecological patterns’April 2002, University of Birmingham.

**3) Zianis D.**, and Mencuccini M. *Towards a simplification of allometric analysis of forest trees and stands*. In: Radoglou, K. (ed.) “Forest Research: a challenge for an integrated European approach”. pp. 32 Proceedings of International Conference 27/8-1/9/01 Thessaloniki, Greece, NAGREF, EC.

**INVITED TALKS & PRESENTATIONS**

* Stavrakoudis, D., Karamvasis, K., **Zianis, D**., Gitas, I., Karathanassi, V., Spyroglou, G., Andronis, V., Radoglou, K. Aboveground forest biomass estimation combining information from optical and SAR remotely sensed imagery. In: Conference for Earth Resources and Environmental Remote Sensing/GIS Applications, Toulouse, France 09/2015.
* **Zianis, D.,** Spyroglou, G., Tiakas, L., and Radoglou, K.*Comparison of aboveground tree biomass allometries obtained from classical regression and Bayesian approach: the case study of Q. frainetto Ten in Chalkidiki peninsula.* In: International Symposium on Forest & Sustainable Development (Invited presentation) Brasov, Romania 24-25/10/2014.
* **Zianis, D.** *Estimating carbon sequestration on aboveground pool for forests and agroforestry systems.* In: ‘International Summer School John S. Latsis Public Benefit Foundation’ (Invited lecturer) Athens, Greece 15-07-2011.
* **Zianis, D.** *Experience gained from CEUBIOM project*. In: ‘Energy Research for a Sustainable Energy System’ RESEARCH CONNECTION 2009 (Invited speaker), Prague (Czech Reb.), May 6-8, 2009.
* **Zianis, D***. Current Terrestrial Methods and Activities for Biomass Potential Assessment: status in Greece*. In 2nd Interim Meeting of WP3 of CEUBIOM Sibenic (Croatia) September 9, 2008.
* Radoglou, K., Zerva, A., **Zianis, D**., Petsikos, C. *Greece’s current LULUCF sector and work under Kyoto Protocol’s art. 3.3 and 3.4.* In: ‘JRC LULUCF Workshop’, Ispra (Italy) 13-14 November 2008.
* **Zianis, D**. *Allometric relationships for tree species in Greece.* In: ‘Final Plenary Meeting COST E21 Contribution of Forest and Forestry to the Mitigation of Greenhouse Effects’ University College Dublin, Dublin (Ireland) October 7-9, 2004.
* Mencuccini, M., and **Zianis, D**. *Biology of tree allometry and aboveground biomass estimation*. In: ‘Allometry of trees, development of Biomass Expansion Factors and biomass C stock estimates’ COST E21 4th whole action meeting, Centro De Estudios Ambientales Del Mediterraneo, Valencia (Spain), October 7-8, 2002.
* **Zianis, D** and Mencuccini, M. *On simplifying allometric analysis of forest biomass at stand and regional scale.* In: ‘Expert group meeting on biomass expansion factors’ COST E21 WG1-Biomass, Centre de Recerca Ecologica i Aplications Forestals, Besalu (Spain), July 4-5, 2002.
* **Zianis, D** and Muukkonen, P. *Database development for biomass and stem volume equations in Europe*. In: ‘Allometry of trees, development of Biomass Expansion Factors and biomass C stock estimates’ COST E21 4th whole action meeting, Centro De Estudios Ambientales Del Mediterraneo, Valencia (Spain), October 7-8, 2002.
* Mencuccini, M., and **Zianis, D**. *Towards a simplification of allometric studies in forest research.* In: ‘Contribution of Forests and Forestry to Mitigate Greenhouse Effects’ COST E21 3th whole action meeting, Centro De Estudios Ambientales Del Mediterraneo, Liege (Belgium), October 22-25, 2001.

**PROFESSIONAL MEMBERSHIPS**

Member of the British Ecological Society

Member of the International Association of Ecology

Member of the Greek Agroforestry Network

Member of the International Association for Mediterranean Forests

**REFEREES**

* Dr. M Mencuccini. School of Geosciences, The University of Edinburgh, Darwin Building, Mayfield Road EH9 3JU. Tel. 0131 6505432, Fax 0131 6620478. email: m.mencuccini@ed.ac.uk
* Prof. J Grace. School of Geosciences, The University of Edinburgh, Darwin Building, Mayfield Road EH9 3JU. Tel. 0131 6505432, Fax 0131 6620478. email: jgrace@ed.ac.uk
* Dr. M. Vrahnakis, TEI of Thessaly, Department of Forestry and Management of Natural Environment, Terma Mauromixali, PC 43100, PO: 254, Karditsa, Greece

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