

Dr Konstantinos A. Spanos (CV)

(Work address: FOREST RESEARCH INSTITUTE, 57006 - Thessaloniki, Greece

Tel.: +30 2310 461172, Fax: +30 2310 461341, e-mail: kspanos@fri.gr)

Dr Konstantinos Spanos is a Senior Research Scientist at the Forest Research Institute - (National Agricultural Research Organisation) in Thessaloniki - Greece. He has long experience on forest management, forestry research, public service and academia. He obtained his B.Sc. in Forestry in 1982 from the Aristotle University of Thessaloniki (Dep. of Forestry and Natural Environment). He is specialised on Forest Genetics (Mphil -1992 - U.C.N.W/UK, PhD -1995 - Univ. of Aberdeen/UK, Postdoc research in 1996 -SUAS, Umeå/Sweden) with long research experience on Population Genetics, Ecological Genetics, Molecular Genetics, Tree Breeding, Disease Resistance, Evolution, Silviculture & Forest Management and Assessment and Monitoring of Forest Biodiversity. He has worked as Forest Manager and Research Assistant for the Ministry of Agriculture - General Secretary of Forests and Natural Environment (FRI in Athens) for the period 1985-1995. He has participated (as scientific responsible or team member) in several National and European projects (e.g. FRAXIGEN, MOHIEF, NATURA, LIFE) and COST actions, related to forestry and natural environment. He is now working (managing and implementing research projects and management plans) for ELGO-‘DIMITRA’ (before N.AG.RE.F) - FOREST RESEARCH INSTITUTE (Thessaloniki/Greece) - Dep. of Silviculture and Forest Genetics. He is also partly teaching Forestry & Natural Environment at Univ. Schools and Technical Colleges in the country. He has published (International and National Journals and Conferences) several papers (>200) (research & review) on Forest Genetics, Tree Breeding, Disease Resistance, Population Genetics, Biodiversity, Natural Protected Areas, Silviculture, Forest Management and Biomass Energy. He has been acted as editor and peer-reviewer of many scientific papers published in scientific Journals and Conferences’ Proceedings. He is long time member of the Editorial Board of MEQ (Management of Environmental Quality), Australian Journal of Crop Science and Open Agriculture (Intern. Journals) and he has been acted as reviewer of many scientific papers for several International scientific journals. He is member of several national and international scientific Societies, Committees and Networks (e.g. IUFRO, IPC, EUFORGEN, FRAXIGEN, BEECH NETWORKS, HELLENIC FORESTRY SOCIETY, HELLENIC PLANT BREEDING SOCIETY). He has also officially been invited as a speaker for several National & International scientific Conferences.

Selected publications

- 1) **Spanos, K.A.,** Woodward, S., **1997.** Responses of *Cupressus* and *Chamaecyparis* callus tissues to inoculations with *Seiridium cardinale*. *European Journal of Forest Pathology* 27: 13-21.
- 2) **Spanos, K.A.,** Pirrie, A., Woodward, S., Xenopoulos, S., **1999.** Responses in the bark of *Cupressus sempervirens* clones artificially inoculated with *Seiridium cardinale* under field conditions. *European Journal of Forest Pathology* 29: 135-142.
- 3) **Spanos, K.A.,** Pirrie, A. Woodward, S., **1999.** The effect of fertilizer and shading treatments on rooting efficiency in cuttings of the Cupressaceae. *Silvae Genetica* 48 (5): 248-254.
- 4) **Spanos, K.A.,** Pirrie, A. Woodward, S., **2001.** Screening for resistance to *Seiridium cardinale*, *S. cupressi*, and *S. unicornis* isolates in glasshouse-grown seedlings of Cupressaceae. *Silvae Genetica* 50 (5-6): 258-264.

- 5) Spanos, I.A., Koukos, P.K., **Spanos, K.A., 2001.** Comparative investigation on wood production of eleven poplar clones in an experimental planting in North Greece. *Holz als Roh- und Werkstoff* 59: 73-78.
- 6) Tor-Bjorn Larsson, **K. Spanos, A. D. Watt, 2001.** Biodiversity evaluation tools for European forests. *Ecological Bulletins* No. 50, 231 pp.
- 7) VERDU, M., **SPANOS, K.A., CANOVA, I., SLOBODNIK, B. and L. PAULE, 2006.** Similar Gender Dimorphism in the Costs of Reproduction across the Geographic Range of *Fraxinus ornus*. *Annals of Botany* 99, 183-191 (2007).
- 8) **SPANOS, K.A. and A. FEEST, 2007.** A Review of the Assessment of Biodiversity in Forest Ecosystems. *Management of Environmental Quality* 18 (4): 475-486.
- 9) PAPI, R.M., **Spanos, K.A., Kyriakidis, D.A., 2012.** Genetic variation of *Fraxinus angustifolia* natural populations in Greece based on nuclear and chloroplast microsatellite markers. *European Journal of Forest Research* 131: 1151-1161.
- 10) **Spanos, K., Gaitanis, D., Skouteri, A., Petrakis, P., Meliadis, I., 2018.** Implementation of Forest Policy in Greece in Relation to Biodiversity and Climate Change. *Open Journal of Ecology*, 2018 (8), 174-191.

ANNEX I

OTHER SCIENTIFIC PUBLICATIONS

1. **Spanos, K. A., 1992.** The vegetative propagation of *Pinus nigra* Arn. under controlled environmental conditions and its possible uses. *MPhil Thesis*. U.C.N.W., School of Agric. & For. Sci., Bangor, 169 p.
2. **Spanos, K. A., 1995.** Screening for resistance to *Seiridium* canker in the Cupressaceae and vegetative propagation of cypresses. *PhD Thesis*. Univ. of Aberdeen, UK, 309 p.
3. **Spanos, K. A., 1996.** Population Genetics. *Postdoctoral Research*. SUAS - Dep. of Forest Genetics and Plant Physiology, Umeå, Sweden, pp. 55.

Publications in peer-review International Journals

1. **Spanos, K. A., S. Woodward, 1997.** Responses of Cupressus and Chamaecyparis callus tissues to inoculations with Seiridium cardinale in cypress callus. *European Journal of Forest Pathology* 27, 13-21.
2. **Spanos, K. A., S. Woodward, 1997.** In vitro expression of resistance responses to *Seiridium* species in micropropagated shoots of Cupressus sempervirens and Chamaecyparis lawsoniana. *Canadian Journal of Botany*, 75, 1103-1109.
3. **Spanos, K. A., A. Pirrie, S. Woodward, 1997.** Micropropagation of Cupressus sempervirens and Chamaecyparis lawsoniana (A. Murr.) Par. *Silvae Genetica*, 46 (5), 291-295.
4. Andersson, E. W., **K. A. Spanos, T. J. Mullin, D. Lindgren, 1997.** Phenotypic selection compared to restricted combined index selection for many generations. *Silva Fennica*, 32 (2), 111-120.
5. Andersson, E. W., **K. A. Spanos, T. J. Mullin, D. Lindgren, 1997.** Phenotypic selection can be better than selection for breeding value. *Scandinavian Journal of Forest Research*, 13, 7-11.
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8. Spanos, I., P. Koukos and **K. Spanos, 2001.** A Comparative investigation on wood production of eleven poplar clones in an experimental planting in N. Greece. *Holz als Roh- und Werkstoff* 59, 73-78.

9. **Spanos, K.A.**, A. Pirrie, and S. Woodward, **2001**. Screening for resistance to *Seiridium cardinale*, *S. cupressi*, and *S. unicorn* isolates in glasshouse-grown seedlings of Cupressaceae. *Silvae Genetica* 50 (5-6), 258-264.
10. Tor-Bjorn Larsson, **K. Spanos**, A. D. Watt, **2001**. Biodiversity evaluation tools for European forests. *Ecological Bulletins* No. 50, 231 pp.
11. VERDU, M., **SPANOS, K.A.**, CANOVA, I., SLOBODNIK, B. and L. PAULE, **2006**. Similar Gender Dimorphism in the Costs of Reproduction across the Geographic Range of *Fraxinus ornus*. *Annals of Botany* 99, 183-191 (2007).
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13. **SPANOS, K.A.**, FEEST, A., PETRAKIS, P.V., **2008**. Improving the Assessment and monitoring of forest Biodiversity. *Management of Environmental Quality* 20 (1), 52-63 (publ. in 2009)
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15. **SPANOS, K.A.**, A. FEEST and P.V. PETRAKIS, **2009**. Improving the Assessment and monitoring of forest Biodiversity. *Management of Environmental Quality* 20 (1), 52-63.
16. **SPANOS, K.A.**, FEEST, A., PETRAKIS, P., DASKALAKOU, E., **2010**. Silent Points on the Assessment and Monitoring of Forest Biodiversity. ©2010 Global Science Books - Special Issue: *Bioremediation, Biodiversity and Bioavailability* 4 (special issue 1), 1-7.
17. **SPANOS, K.A.**, D. GAITANIS and I. SPANOS, **2010**. Resin production in natural Aleppo pine stands in N/ Evia – Greece and possibilities for increasing income under sustainable forest management. *Web Ecology* 10: 38–43.
18. Calama, R., Tome, M., Sanchez-Gonzalez, M., Miina, J., **Spanos, K.A.**, and M. Palahi, 2010. Modelling non-wood products in Europe: a review. *Forest Systems* 19 (SI), 69-85.
19. **Spanos, K.**, Gaitanis, D., Skouteri, A., Petrakis, P., Meliadis, I., 2018. Implementation of Forest Policy in Greece in Relation to Biodiversity and Climate Change. *Open Journal of Ecology* 8, 174-191.
20. **Spanos, K.A.**, Gaitanis, D., 2020. Wood Biomass Production from a 10-Year Old Plantation of *Fraxinus angustifolia* Vahl in Greece. *Modern Environmental Science and Engineering*, Vol. 6, Number 4, Doi: 05.06.2020/001, Academic Star Publishing Company, Brooklyn, NY. p. 573-582.
21. **Spanos, K.A.**, Skouteri, A., Gaitanis, D., Petrakis, P.V., Meliadis, L., Michopoulos, P. Solomou, A., Koulelis, P., Avramidou, E.V., 2021. Forests of Greece, Their Multiple Functions and Uses, Sustainable Management and Biodiversity Conservation in theFace of Climate Change. *Open Journal of Ecology* 2021 (11), pp. 374-406.

Books, Special Issues and Conference Proceedings

1. Larson, T. B. (Editor) (με τη συμμετοχή 47 ερευνητών, από ΙΔΕ: I. Spanos, **K. Spanos** and D. Trakolis, **2001**. *Biodiversity Evaluation Tools for European Forests*. Ecological Bulletins No. 50. Wallin & Dalholm, Lund, Sweden, 233 p.
2. **FRAXIGEN. 2005**. *Ash species in Europe: biological characteristics and practical guidelines for sustainable use*. Oxford Forestry Institute, University of Oxford, UK, 128 pp.
3. **SPANOS, K.A.**, Wuechlich, G., **2009** (Eds). *Evaluation of Beech Genetic Resources for Sustainable Forestry*. Book of Abstracts - Workshop and MC Meeting of COST Action E52, Thessaloniki, May 5-7, 2009, NAGREF - Forest Research Institute, pp. 18.
4. **SPANOS, K.A.**, **2010** (Editor). *Beech Genetic Resources for Sustainable Forestry in Europe*. Proceedings of Workshop and MC Meeting of COST Action E52 ‘Evaluation of Beech Genetic Resources for Sustainable Forestry’, Thessaloniki, May 5-7, 2009, NAGREF – Forest Research Institute, pp. 133.
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Proceedings of International Conferences/Scientific Meetings

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4. **Spanos, K.A.**, Malamidis, **1997**. *A method for preliminary evaluation of protected forest ecosystems*. Intern. Conf. on "Biodiversity in Managed Forests", May 29-31, 1997, Uppsala, Sweden, SKOG FORSK Report No. 1 (1998), p.135.
5. **Spanos, K.A.**, Pirrie, A. Woodward, S., Tsoulfa, P., **1997**. *Micropropagation of Cupressus sempervirens L. and Chamaecyparis lawsoniana (A. MURR.) PAR*. First Balkan Botanical Congress, September 19-22, 1997, Thessaloniki, Greece, p.174.
6. **Spanos, K.A.**, Koukos, P. K., Spanos, I.A., Giakzidis, G., **1997**. *A comparative investigation on wood production of five hybrid poplar clones in an experimental planting in N. Greece*. The 3rd Intern. Conf. on the Development of Forestry and Wood science/Technology, Serbia/Yugoslavia, Sept. 29th - Oct. 3rd, 1997, Belgrade & Mt. Goc. Proc. Vol. I, p. 149-155.
7. **Spanos K.A.**, Andersson, E.W., **1997**. *Effects of selection on genetic diversity*. Proc. XI World Forestry Congress, October 13-22, 1997, Antalya, Vol. 2, p. 210.
8. **Spanos, K.A.**, Trakolis, D., Malamidis, G., Spanos, I.A., **1997**. *Forest ecosystems and conservational management of Pindos National Park -Greece*. International Congress- Naturalness and European Forests. Council of Europe, 26-29 October, 1997, Strasbourg, France.
9. **Spanos K.A.**, **1998**. *Conservation of forest biodiversity in Mediterranean countries*. Electronic Conference on Research and Biodiversity. 4th May-14th June, 1998. European Working Group on Research and Biodiversity - Ministry of Environment, Autonomous Government of Catalonia, Barcelona
10. **Spanos K.A.**, Malamidis, G., Spanos I.A., Klonaris, G., **1998**. *A special biotope in a Pinus halepensis forest in Chalkidiki -N. Greece*. Proc. Forum "Biodiversity - Treasures in the World's Forests", July 3-4, 1998, Schneverdingen, Germany, p. 212-216.
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15. **Spanos K.A.**, Tsialtas, J., Giakzidis, G., **2001**. *Biomass production from a short rotation coppice experimental planting of ten poplar clones in N. Greece*. Third Balkan Scientific Conference on 'Study, Conservation and Utilisation of Forest Resources', October 2-6, 2001, Sofia-Bulgaria, Proc. Vol. I, p. 326-335.
16. Trakolis, D., **Spanos K.**, Spanos, I., **2001**. Integrated management of mounts Tzena and Pinovo - A European Union special protection area (SPA). Third Balkan Scientific Conference on 'Study, Conservation and Utilisation of Forest Resources', October 2-6, 2001, Sofia-Bulgaria, Proc. Vol. I, p. 373-381.
17. Skodras, G., **Spanos K.**, Samaras, P., Vourliotis, P., Grammelis, P., Kakaras, E., Sakellaropoulos, G.P., **2001**. *Co-Combustion of waste wood in industrial power plants -Environmental impacts*. COST Action E9 – Life cycle assessment on forestry and forest products, EUR 19858, p. 245-255.
18. **Spanos K.**, Papajannopoulos, A., Stathopoulos, N., **2002**. *Resin production in natural Haleppo pine stands in N. Evia and possibilities for genetic improvement under sustainable management*. TWIG end-of Project Conference: Improving the economy of woodlands in Europe. June 5-7, Athens and N. Evia, 2002, Greece, 8 pp.
19. **Spanos K.**, Tsialtas, I., Mylonas, D., **2002**. *Biomass production from a short rotation experimental planting of ten poplar clones in N. Greece*. IUFRO Meeting on 'Management of Fast Growing Plantations', September 11-13, 2002, Izmit –Turkey, Proc. p. 43-51.
20. **Spanos K.**, **2002**. Important hot topics on Biodiversity Monitoring. Electronic Conference on Monitoring of Biodiversity, September 2002, Spain (Catalonia), UK (Banchory).
21. **SPANOS, K.A.**, GAITANIS, D., MYLONAS, D., **2004**. Survival and growth of *Fraxinus ornus* provenances tested in reciprocal transplants experiments for ecological adaptation. IUFRO Joint Conference of Division 2 – Forest Genetics and Tree Breeding in the Age of Genomics: Progress and Future, November 1-5, 2004, Charleston, South Carolina, USA, Proc. p. 207-213.
22. **SPANOS, K. A.**, PAPI, R.M., MYLONAS, D.P., GAITANIS, D., KYRIAKIDIS, D.A., **2004**. The European Research Programme FRAXIGEN: ash for the future, defining ash populations for conservation, regeneration and ecological adaptation - works in Greece. IUFRO Joint Conference of Division 2 – Forest Genetics and Tree Breeding in the Age of Genomics: Progress and Future, November 1-5, 2004, Charleston, South Carolina, USA, Proc. p. 421-429.
23. **SPANOS, K. A.**, PAPI, R. M., KYRIAKIDIS, D.A., **2005**. Use of molecular markers for genetic analysis of forest tree populations - The case study of *Fraxinus ornus*. 2nd International Greek Biotechnology Forum (IGBF2), July 1-3, Athens, 2005.
24. **SPANOS, K.A.**, D. GAITANIS, **2009**. The beech forests in Greece – an overview. In: Evaluation of Beech Genetic Resources for Sustainable Forestry (ed. K.A. Spanos), Proceedings of the Workshop and MC Meeting of the COST Action E52, Thessaloniki, May 5-7, 2009, NAGREF – Forest Research Institute, p. 6-20.
25. **SPANOS, K.A.**, **2010**. Beech forest genetic resources in Greece: Their importance and conservation value - Adaptive strategy under climate change. In: Genetic Resources of European Beech (*Fagus sylvatica* L.) for Sustainable Forestry, Proceedings of the Final Conference of the COST Action E52, May 4-6, 2010, Burgos – Spain (under publ.).
26. Alexandrov, A., Mátyás, C., Giannini, R., Parnuta, G., **Spanos, K.**, Orlovic, S., **2010**. Ecology of European beech, its sociological characteristics and adaptation strategy. In: Genetic Resources of European Beech (*Fagus sylvatica* L.) for Sustainable Forestry, Proceedings of the Final Conference of the COST Action E52, May 4-6, 2010, Burgos – Spain (under publ.).
27. Koskela, J., de Vries, S., Hubert, J., Alexandrov, A., **Spanos, K.**, Bozzano, M., **2010**. Geographical distribution of gene conservation efforts for European beech (*Fagus sylvatica* L.) within the species' distribution range. In: Genetic Resources of European Beech (*Fagus sylvatica* L.) for Sustainable Forestry, Proceedings of the Final Conference of the COST Action E52, May 4-6, 2010, Burgos – Spain (under publ.).
28. Spanos, K.A., Gaitanis, D., Nanos, N., **2018**. Biomass production from a 10-year old experimental plantation of the forest tree species *Fraxinus angustifolia* Vahl. for energy use (in Hellenic). SOLAR INSTITUTE, 11o National Conference for Renewable Energy, March 14-16, 2018, Thessaloniki, Greece. Proceedings, Vol. A', p. 325-334.