

# **Curriculum vitae.** João Manuel Dias Santos Pereira

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## 1. Dados pessoais

### **1. Personal data**

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Nome completo

**Full name**

João Manuel Dias Santos Pereira

BI

National identity card

164151

Local e data de Nascimento

**Birth place and date**

Santarém 22-02-1948

Pais de nacionalidade

**Nationality**

Portugal

Morada institucional

**Institutional address**

Instituto Superior de Agronomia, Universidade Técnica de Lisboa

Instituto Superior de Agronomia, Tapada da Ajuda

1349-017 Lisboa

Portugal

Morada de residência

**Living address**

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Contactos

**Contact data**

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## **2. Formação académica**

### **2. Academic degrees**

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Ano	Grau académico	Instituição	Classificação
Year	Academic degree	Institution	Classification
1979	AGREGAÇÃO	Instituto Superior de Agronomia	Aprovado
1976	DOUTORAMENTO	University of Wisconsin-Madison (U.S.A.)	Aprovado
1971	LICENCIATURA	Instituto Superior de Agronomia	14,4

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**3. Actividades anteriores e situação actual em termos científicos e/ou profissionais**  
**3. Previous and current scientific and/or professional activities**

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<b>Período</b> <b>Period</b>	<b>Cargo ou categoria</b> <b>Position or category</b>	<b>Instituição</b> <b>Institution</b>
1971-1972	Assistant	Instituto Superior de Agronomia
1972 - 1976	Research Assistant	Univ. Wisconsin-Madison, U.S.A.
1976 - 1985	Professor Auxiliar & Professor Associado	Instituto Superior de Agronomia
1985 - present	Professor Catedrático	Instituto Superior de Agronomia
1987-2002	Head of Department (Dept. de Eng. Florestal)	Instituto Superior de Agronomia
2003- present	President of the Scientific Council	Instituto Superior de Agronomia
2000 - present	Member of the editorial board of international journal	Tree Physiology (USA)
1995 – 2002	President	Sociedade Portuguesa de Ciências Florestais
2002 - present	Council Member	Portuguese Council for the Environment and Sustainable Development (CNADS), Lisbon
1999 -2004	Steering Committee member - LINKECOL	European Science Foundation
2003 - 2007	Steering Committee member - SIBAE	European Science Foundation

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1995-2005 "Deputy leader" of Subject Group IUFRO (International Union of Forestry  
S2.01.00 (Tree Physiology) Research Organizations)

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2005 - present Coordinator for the SubjectGroup IUFRO (International Union of Forestry  
2.01 Research Organizations)

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#### **4. Área de actividade científica**

#### **4. Area of scientific activity**

Terrestrial ecology and plant eco-physiology: study of plant responses to stress, including climate change – elevated carbon dioxide, water deficits and high temperatures, nutrient use efficiency. Study of the carbon cycle at ecosystem level – role of forests to mitigate the effects of greenhouse gas emissions. The application of knowledge to improve ecosystem restoration in Mediterranean conditions and to understand the functional role of plant biodiversity.

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#### **5. Domínio de especialização**

#### **5. Domain of specialization**

Domínio de especialização

**Domain of specializations**

Terrestrial ecology and plant eco-physiology: leaf and canopy gas exchange, whole plant responses to stress, the effects of several factors – elevated carbon dioxide, water deficits nutrients – on plant productivity and survival; use of stable isotopes in ecology (co-chairman of a spring school (26.3. – 7.4.2001) on "Stable isotopes in community and ecosystems ecology", held at Évora, Portugal. This spring school exposed 20 European graduate students and young scientists to the use of stable isotopes in ecology, using lectures as well as discussion groups, computer labs, field trips, etc.).

Actuais interesses de investigação

**Present research interests**

Cork oak physiology and the use of ecological and eco-physiological knowledge to assess ecosystem vulnerability and devise methods to improve tree regeneration and the restoration of oak woodland ecosystems. Portuguese forests carbon balance. Assessment of the effects of global chage in forests and biodiversity. Study of the importance of biodiversity and ecological processes in Mediterranean ecosystems

Outras competências/actividades

**Other skills/activities**

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#### **6. Experiência na orientação**

#### **6. Supervising experience**

Supervisor of 9, successful, Ph.D. thesis (+1 as co-supervisor).

Presently supervisor of 4 Ph.D. candidates and 3 post-doctoral fellows.

Responsible for several M.Sc. thesis.

Member of the evaluation committees of Ph.D. thesis and "habilitation" in Portugal as well as in France, South Africa, Holland and New Zealand.

Coordinator of M.Sc. courses: "Plant Prductivity" and "Silviculture of fast growing tree

plantations"

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## 7. Participação em projectos

### 7. Participation in research projects

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PI of the Portuguese team in the European project "The nitrogen cycle and its influence on the European greenhouse gas balance"(NITROEUROPE-IP)", financed by VI Framework, 2006-2009 PI of the Portuguese team in the European project, "IMECC (Infrastructure for Measurements of the European Carbon Cycle)", an Integrated Infrastructure Initiative (I3) under the Sixth Framework Programme of the European Commission Coordinator of the project "Climate change and Mediterranean ecosystems - the effect of precipitation variability on the understory of cork oak woodlands". (PTDC/CLI/64480/2006) Principal investigator of the Portuguese team in projects already finished: Coordinator of the EU project (5 FP) «CREOAK - Conservation and Restoration of European cork OAK woodlands: a unique ecosystem in the balance», financed by CEC - D.G. XII. V Framework, 2002-2006. PI of the portuguese team in the EU project "Assessment of the European terrestrial carbon balance"(CarboEurope-IP)", financed by VI Framework (Contract N° GOCE-CT-2003-505572), 2003-2008 Participation in "Climate change inferences from tree rings in the Mediterranean area: a database for Portugal" – POCI/CLI/58680/2004 (Coordin. Maria Cristina Nabais., U. Coimbra) Coordinator of the project "Vulnerability of cork oak woodlands to climate change: a modelling approach" – POCI/CLI/60413/2004 PI of the portuguese team in the EU project (5 FP) «MIND - Mediterranean Terrestrial Ecosystems and Increasing Drought: vulnerability assessment», financed by CEC - D.G. XII. V Framework, 2002-2005. «ESTABLISH - Molecular ecophysiology as tool for the selection of highly stress resistant poplar species for multipurpose forests», financed by CEC - D.G. XII. V Framework. 1999-2004. «CARBOEUROFLUX An investigation on Carbon and Energy exchanges of terrestrial ecosystems in Europe», financed CEC - D.G. XII. V. 1999-2003. «MEDEFLU: Carbon and water fluxes of Mediterranean Forests and impacts of land use/cover changes», financed CEC - D.G. XII. Programme ENVIRONMENT (DG XII Contract Nr. ENV4-CT97-0455) Duration: 1998-1999. «Genetic, molecular and physiological determinants of water use efficiency and drought resistance in major forest trees- DELTA» (FAIR1-CT95-781). Duration: 1996-1998. «Biodiversity and ecological processes in terrestrial ecosystems: experimental manipulation of herbaceous plant communities - BIODEPTH» (ENV4-CT95-0008): Duration: 1996-1998

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## 8. Prémios e Distinções

### 8. Prizes and awards

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Ano	Nome do Prémio ou Distinção	Nome da entidade promotora
Year	Name of the prize or award	Name of the granting entity
1976	Full member he SciSigma Xi, The Scientific Research Society	Sigma Xi, The Scientific Research Society ( <a href="http://www.sigmaxi.org/index.shtml">http://www.sigmaxi.org/index.shtml</a> )
1984	A. v.- Humboldt Fellowship (Univ. Würzburg)	A. v.- Humboldt Stiftung (Bonn)
2004	Membre of the Academia Europaea	Academia Europaea, London.
2008	Scientific awards UTL/Santander Totta in the area of ag. sciences	Universidade Técnica de Lisboa

## 9. Publicações 9. Publications

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### Teses / Thesis

#### Livros (autor) / Books (author)

Aronson J, Pereira JS, Pausas JG, eds. 2009. Cork Oak Woodlands on the Edge: Conservation, Adaptive Management and Restoration. Island Press, (ISBN-13: 978-1-59726-479-2), New York, 315 pp. Alves, A.A.M., J.S. Pereira and J.M.N. Silva (2007) O eucaliptal em Portugal. Impactes ambientais e investigação científica. ISAPress, (ISBN 978-972-8669-25-6), Lisboa, 393 pp. Pereira, J.S., J.M.C. Pereira, F.C. Rego, J. Silva and T. Silva (2006) Incêndios Florestais em Portugal: Caracterização, Impactes e Prevenção. ISAPress (ISBN 972-8669-17-8), Lisboa, Portugal, 515 pp. Oliveira, A.C., J.S. Pereira and A.V. Correia (2000) A Silvicultura do Pinheiro Bravo. Centro Pinus.(ISBN 972-98308-2-7), Porto, Portugal. Alves, A.A.M. and J.S. Pereira (eds.) (1990) Impactes ambientais e Sócio-económicos do Eucaliptal em Portugal. (Environmental and socio-economic impacts of eucalypt plantations in Portugal). Instituto Superior de Agronomia, Univ. Técnica de Lisboa. Lisboa. 102 pp. Pereira, J.S. and J.J. Landsberg (eds.) (1989) Biomass Production by Fast-Growing Trees. Kluwer, Dordrecht, The Netherlands.

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#### Capítulos de livros / Chapters in books

Recent publications Pereira, J.S., M.M. Chaves, M.C. Caldeira and A.V. Correia (2006) Water availability and productivity. In Plant Growth and Climate Change Eds. J.I.L. Morrison and D. Morecroft. Blackwell Publishers, London, pp. 118-145. Pereira, J.S., A.P. Correia, A.V. Correia and J.G. Borges 2009b. Florestas. In Ecossistemas e Bem-Estar Humano. Avaliação para Portugal do Millennium Ecosystem Assessment Eds. H.M. Pereira, T. Domingos, L. Vicente and V. Proença. Fundação da Faculdade de Ciências da Universidade de Lisboa, Lisbon, pp. 183-212. Pereira JS, Tomé M. 2009. Mitigação das emissões de CO<sub>2</sub> fóssil pelas florestas. In: Ramôa-Ribeiro F, ed. A energia da razão. Lisboa, Portugal: Gradiva, 269-285. Pausas JG, Pereira JS, Aronson J. 2009. The tree. In: Aronson J, Pereira JS, Pausas JG, eds. Cork Oak Woodlands on the Edge: Conservation, Adaptive Management and Restoration. New York: Island Press, 11-21. Vallejo R, Aronson J, Pausas JG, Pereira JS. 2009. The way forward In: Aronson J, Pereira JS, Pausas JG, eds. Cork Oak Woodlands on the Edge: Conservation, Adaptive Management and Restoration. New York: Island Press, 235-245. Pereira, J.S., M.M. Chaves and C. Kurz-Besson 2009a. coping with drought. In Cork Oak Woodlands on the Edge: Conservation, Adaptive Management and Restoration Eds. J. Aronson, J.S. Pereira and J.G. Pausas. Island Press, New York, pp. 73-80. Alves, A.A., N. Devy-Vareta, A. Oliveira and J.S. Pereira (2006) A floresta e o fogo através dos tempos. In Incêndios Florestais em Portugal: Caracterização, Impactes e Prevenção Eds. J.S. Pereira, J.M.C. Pereira, F.C. Rego, J. Silva and T. Silva. ISAPress, Lisboa, Portugal, pp. 15-40 Pereira, J.S., A.V. Correia, A.C. Correia, T. Ferreira, N. Godinho, N. Onofre and H. Freitas (2006a) Florestas e Biodiversidade. In Alterações Climáticas em Portugal. Cenários, Impactes e Medidas de Adaptação Eds. F.D. Santos and P. Miranda. Gradiva, Lisboa, pp. 301-343. Chaves, M.M., J.S. Pereira and J. Osório (2004) Water use efficiency and photosynthesis. In M. Bacon (Ed.) Water Use Efficiency in Plant Biology. Blackwell Publishing, UK. pp. 42-74. Chaves, M.M. and J.S. Pereira (2004) Respuestas de las plantas al estrés múltiple y la habilidad de enfrentarse a un ambiente cambiante. In: M. Reigosa-Roger, N. Pedrol-Bonjoch, and A. Sánchez-Moreiras, (Eds.) La Ecofisiología Vegetal. Una ciencia de síntesis. Paraninfo, Thompson, Madrid, Spain. Pereira, J.S., J.S. David, T.S. David, M.C. Caldeira and M.M. Chaves

(2003) Carbon and Water Fluxes in Mediterranean-Type Ecosystems – Constraints and Adaptations In: Esser, K., Lüttge, U., Beyschlag, W. and Murata, J. (Eds.), *Progress in Botany*, Vol. 65. Springer-Verlag, Berlin Heidelberg, pp. 467-498. Pereira, J.S., A.V. Correia, A.P. Correia, M. Branco, M. Bugalho, M.C. Caldeira, C. Souto-Cruz, H. Freitas, A.C. Oliveira, J.M.C. Pereira, R.M. Reis and M.J. Vasconcelos (2002) Forests and Biodiversity. In: Santos, F.D., Forbes, K., Moita, R. (Eds.). *Climate Change in Portugal. Scenarios, Impacts, and Adaptation Measures*. Gradiva, Lisboa. Portugal. Pp. 363-414. Hector, A., B. Schmid, C. Beierkuhnlein, M.C. Caldeira, M. Diemer, P.G. Dimitrakopoulos, J. Finn, H. Freitas, P.S. Giller, J. Good, R. Harris, P. Höglberg, K. Huss-Danell, J. Joshi, A. Jumpponen, C. Körner, P.W. Leadley, M. Loreau, A., Minns, C.P.H. Mulder, G. O'Donovan, S.J. Otway, J.S. Pereira, A. Prinz, D.J. Read, M. Scherer-Lorenzen, E.D. Schulze, A.-S.D. Siamantziouras, E.M. Spehn, A.C. Terry, A.Y. Troumbis, F.I. Woodward, S. Yachi and J.H. Lawton (2001) Biodiversity and the Functioning of Grassland Ecosystems: Multisite Studies. In: A. Kinzig, D. Tilman & S. Pacala (eds) *Functional Consequences of Biodiversity: Experimental Progress and Theoretical Extensions*. Princeton University Press, Princeton, USA.

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Artigos em revistas de circulação internacional com arbitragem científica / Papers in international scientific periodicals with referees

Hussain, M.Z., D. Otieno, H. Mirzae, Y.L. Li, M.W.T. Schmidt, L. Siebke, T. Foken, N. Ribeiro, J.S. Pereira and J.D. Tenhunen 2009. CO<sub>2</sub> exchange and biomass development of the herbaceous vegetation in the Portuguese montado ecosystem during spring *Agriculture, Ecosystems & Environment*. 132:143-152. Costa e Silva, F.; Shvaleva, A.; Broetto, F.; Ortúñoz, Almeida, M. H.; Rodrigues M.L.; Chaves, M.M.; Pereira, J.S. (2009). Acclimation to short-term low temperatures in two *Eucalyptus globulus* clones with contrasting drought resistance. *Tree Physiology* 29:77-86. Unger, S., C. Maguas, J.S. Pereira, L. Aires, T.S. David and C. Werner 2009. Partitioning carbon fluxes in a Mediterranean oak forest to disentangle changes in ecosystem sink strength during drought. *Agricultural and Forest Meteorology*. 149:949-961. Maseyk, K., U. Seibt, J. Ghashghaei, C. Bathellier, P. Almeida, R. Lobo de Vale, J.S. Pereira, D. Yakir, M. Mencuccini and L. Wingate 2009. Biotic and abiotic factors affecting the d13C of soil respired CO<sub>2</sub> in a Mediterranean oak woodland. *Isotopes in Environmental and Health Studies*. 45:343 — 359. Paço TA, David TS, Henriques MO, Pereira JS, Valente F, Banza J, Pereira FL, Pinto C, David JS. 2009. Evapotranspiration from a Mediterranean evergreen oak savannah: The role of trees and pasture. *Journal of hydrology* 369, 98-106 Schmidt, M.W.T., D. Schreiber, A. Correia, N. Ribeiro, P. Surový, D. Otieno, J. Tenhunen and J.S. Pereira 2009. Sap Flow in Cork Oak Trees at Two Contrasting Sites in Portugal. *Acta Horticulturae*. 846:345-352. Li Y-L, Tenhunen J, Mirzaei H, Hussain MZ, Siebicke L, Foken T, Otieno D, Schmidt M, Ribeiro N, Aires L, Pio C, Banza J, Pereira JS. 2008. Assessment and up-scaling of CO<sub>2</sub> exchange by patches of the herbaceous vegetation mosaic in a Portuguese cork oak woodland. *Agric. For. Meteorol.* 148, 1318 - 1331. Wingate L, Seibt U, Maseyk K, Ogee J, Almeida P, Yakir D, Pereira JS, Mencuccini M. 2008. Evaporation and carbonic anhydrase activity recorded in oxygen isotope signatures of net CO<sub>2</sub> fluxes from a Mediterranean soil. *Global Change Biology* 14, 2178-2193. Correia I, Almeida MH, Aguiar A, Alia R, David TS, Pereira JS. 2008. Variations in growth, survival and carbon isotope composition (delta C-13) among *Pinus pinaster* populations of different geographic origins. *Tree Physiology* 28, 1545-1552. Cerasoli S, McGuire MA, Faria J, Mourato M, Schmidt M, Pereira JS, Chaves MM, Teskey RO. 2008. CO<sub>2</sub> efflux, CO<sub>2</sub> concentration and photosynthetic refixation in stems of *Eucalyptus globulus* (Labill.). *J. Exp. Bot.*, ern272. Aires, L.M., C.A. Pio and J.S. Pereira (2008) The effect of drought on energy and water vapour exchange above a mediterranean C3/C4 grassland in Southern Portugal. *Agricultural and Forest Meteorology* 148:565-579. Aires, L.M.I., C.A. Pio and J.S. Pereira (2008b) Carbon dioxide exchange above a Mediterranean C3/C4 grassland during two climatologically contrasting years. *Global Change Biology* 14:539-555. Carvalhais, N., M. Reichstein, J. Seixas, G.J. Collatz, J.S. Pereira, P. Berbigier, A. Carrara, A. Granier, L. Montagnani, D. Papale, S. Rambal, M.J. Sanz and R. Valentini (2008) Implications of the carbon cycle steady state assumption for biogeochemical modeling performance and inverse

parameter retrieval. Global Biogeochemical Cycles 22. Shvaleva, A., F.C.E. Silva, P. Scotti, M.O. Ufir, J.F. Hausman, G. Cedric, P. Ramos, M.H. Almeida, M.L. Rodrigues, J.S. Pereira and M.M. Chaves (2008) Physiological and biochemical responses to low non-freezing temperature of two Eucalyptus globulus clones differing in drought resistance. Annals of Forest Science 65:204.

Rodrigues ML, Santos TP, Rodrigues AP, de Souza CR, Lopes CM, Maroco JP, Pereira JS, Chaves MM. 2008. Hydraulic and chemical signalling in the regulation of stomatal conductance and plant water use in field grapevines growing under deficit irrigation. Functional Plant Biology 35, 565-579. Silva, F.C.E., A. Shvaleva, M.H. Almeida, M.M. Chaves and J.S. Pereira (2007) Responses to chilling of two Eucalyptus globulus clones with contrasting drought resistance. Functional Plant Biology 34:793-802. Otieno, D., M.W.T. Schmidt, C. Kurz-Besson, R. Lobo-do-Vale, J.S. Pereira and J. Tenhunen (2007) Regulation of transpirational water loss in Quercus suber trees in a Mediterranean-type ecosystem. Tree Physiology 27:1179-1187. Pereira, J.S., J.A. Mateus, L.M. Aires, G. Pita, C. Pio, J.S. David, V. Andrade, J. Banza, T.S. David, T.A. Paço and A.M. Rodrigues (2007) Net ecosystem carbon exchange in three contrasting Mediterranean ecosystems - the effect of drought. Biogeosciences 4:791-802. Chaves, M.M., T.P. Santos, C.R. Souza, M.F. Ortúñoz, M.L. Rodrigues, C.M. Lopes, J.P. Maroco and J.S. Pereira (2007) Deficit irrigation in grapevine improves water-use efficiency while controlling vigour and production quality Annals of Applied Biology 150:237-252. David, T.S., M.O. Henriques, C. Kurz-Besson, J. Nunes, F. Valente, M. Vaz, J.S. Pereira, R. Siegwolf, M.M. Chaves, L.C. Gazarini and J.S. David (2007) Water use strategies in two co-occurring Mediterranean evergreen oaks: surviving the summer drought. Tree Physiology 27:793-803. Jarvis, P.G., A. Rey, C. Petsikos, L. Wingate, M. Rayment, J.S. Pereira, J. Banza, J.S. David, F. Miglietta, M. Borgetti, G. Manca and R. Valentini (2007) Drying and wetting of Mediterranean soils stimulates decomposition and carbon dioxide emission: the “Birch effect”. Tree physiology 27:929–940. Kurz-Besson, C., D. Otieno, R.L. Vale, R. Siegwolf, M. Schmidt, A. Herd, C. Nogueira, T.S. David, J.S. David, J. Tenhunen, J.S. Pereira and M. Chaves (2006) Hydraulic lift in cork oak trees in a savannah-type Mediterranean ecosystem and its contribution to the local water balance. Plant and Soil 282:361–378. Otieno, D., C. Kurz-Besson, J. Liu, M. Schmidt, R. Do, T. David, R. Siegwolf, J. Pereira and J. Tenhunen (2006) Seasonal variations in soil and plant water status in a Quercus suber L. stand: roots as determinants of tree productivity and survival in the Mediterranean-type ecosystem. Plant and Soil 283:119-135. Carreiras, J.M.B., J.M.C. Pereira and J.S. Pereira (2006) Estimation of tree canopy cover in evergreen oak woodlands using remote sensing. Forest Ecology and Management 223:45–53. David, T.S., J.H.C. Gash, F. Valente, J.S. Pereira, M.I. Ferreira and J.S. David (2006) Rainfall interception by an isolated evergreen oak tree in a Mediterranean savannah. Hydrological Processes 20:2713–2726. Shvaleva, A.L., F. Costa E. Silva, E. Breia, J. Jouve, J.F. Hausman, M.H. Almeida, J.P. Maroco, M.L. Rodrigues, J.S. Pereira and M.M. Chaves (2006) Metabolic responses to water deficit in two Eucalyptus globulus clones with contrasting drought sensitivity. Tree Physiology 26:239-248. Hemming, D., D. Yakir, P. Ambus, M. Aurela, C. Besson, K. Black, N. Buchmann, R. Burlett, A. Cescatti, R. Clement, P. Gross, A. Granier, T. Grünwald, K. Havrankova, D. Janous, I.A. Janssens, A. Knohl, B. Köstner, A. Kowalski, T. Laurila, C. Mata, B. Marcolla, G. Matteucci, J. Moncrieff, E.J. Moors, B. Osborne, J.S. Pereira, M. Pihlatie, K. Pilegaard, F. Ponti, Z. Rosova, F. Rossi, A. Scartazza and T. Vesala (2005) Pan-European d13C values of air and organic matter from forest ecosystems. Global Change Biology 11:1065-1093. Souza, C.R., J.P. Maroco, T.P. Santos, M.L. Rodrigues, C. Lopes, J.S. Pereira and M.M. Chaves (2005) Impact of deficit irrigation on water use efficiency and carbon isotope composition (d13C) of field-grown grapevines under Mediterranean climate. Journal of Experimental Botany 56:2163–2172. Souza, C.R., J. Maroco, T. Santos, M.L. Rodrigues, C. Lopes, J.S. Pereira and M.M. Chaves (2005) Grape berry metabolism in field-grown grapevines exposed to different irrigation strategies. Vitis 103-109. Santos, T., C.R. Souza, C. Lopes, M.L. Rodrigues, J. Maroco, J.S. Pereira, J.R. Silva and M.M. Chaves (2005) Partial root-zone drying irrigation affects cluster microclimate improving fruit composition of Castelão field-grown grapevines. Vitis 117-125. Spehn, E.M., A. Hector, J. Joshi, M. Scherer-Lorenzen, B. Schmid, E. Bazeley-White, C. Beierkuhnlein, M.C. Caldeira, M. Diemer, P.G. Dimitrakopoulos, J.A. Finn, H. Freitas, P.S.

Giller, J. Good, R. Harris, P. Hogberg, K. Huss-Danell, A. Jumpponen, J. Koricheva, P.W. Leadley, M. Loreau, A. Minns, C.P.H. Mulder, G. O'Donovan, S.J. Otway, C. Palmborg, J.S. Pereira, A.B. Pfisterer, A. Prinz, D.J. Read, E.D. Schulze, A.S.D. Siamantziouras, A.C. Terry, A.Y. Troumbis, F.I. Woodward, S. Yachi and J.H. Lawton (2005) Ecosystem effects of biodiversity manipulations in European grasslands. *Ecological Monographs* 75(1):37-63.

Caldeira, M.C., A. Hector, M. Loreau and J.S. Pereira (2005) Species richness, temporal variability and resistance of biomass production in a Mediterranean grassland. *OIKOS* 110:115-123.

Souza, C.R., J. Maroco, T. Santos, M.L. Rodrigues, C. Lopes, J.S. Pereira and M.M. Chaves (2005) Control of stomatal aperture and carbon uptake by deficit irrigation in two grapevine cultivars. *Agriculture, ecosystems and Environment* 106:261-274.

Costa-e-Silva, F., A. Shvaleva, J.P. Maroco, M.H. Almeida, M.M. Chaves and J.S. Pereira (2004) Responses to water stress in two *Eucalyptus globulus* clones differing in drought tolerance. *Tree Physiology* 24,1165–1172.

David, T.S., M.I. Ferreira, S. Cohen, J.S. Pereira and J.S. David (2004) Constraints on transpiration from an evergreen oak tree in southern Portugal. *Agricultural and Forest Meteorology* 122:193–205.

Cerasoli, S., A. Scartazza, E. Brugnoli, M.M. Chaves and J.S. Pereira (2004) The effects of a partial defoliation on carbon and nitrogen uptake and partitioning in two-year-old cork oak (*Quercus suber* L.) seedlings. *Tree physiology* 24:83-90.

Cerasoli S., P. Maillard, A. Scartazza, F. Brugnoli, M.M. Chaves and J.S. Pereira (2004) Carbon and nitrogen winter storage and remobilisation during seasonal flush growth in two-year-old cork-oak (*Quercus suber* L.) seedlings. *Ann. Sci. For.* 61:721–729.

Souza, C.R., J. Maroco, T. Santos, M.L. Rodrigues, C. Lopes, J.S. Pereira and M.M. Chaves (2003) Partial rootzone drying: regulation of stomatal aperture and carbon assimilation in field-grown grapevines (*Vitis vinifera* cv. Moscatel). *Functional Plant Biology* 30:653-662.

Santos, T., C.R. Souza, C. Lopes, M.L. Rodrigues, J. Maroco, J.S. Pereira, J.R. Silva and M.M. Chaves (2003) Partial root-drying: Effects on growth and fruit quality of field grown grapevines (*Vitis vinifera*, L.). *Functional Plant Biology* 30:663–671.

Reichstein, M., A. Rey, A. Freibauer, J. Tenhunen, R. Valentini, J. Banza, P. Casals, Y. Cheng, J. M. Grünzweig, J. Irvine, R. Joffre, B. E. Law, D. Loustau, F. Miglietta, W. Oechel, J.-M. Ourcival, J. S. Pereira, A. Peressotti, F. Ponti, Y. Qi, S. Rambal, M. Rayment, J. Romanya, F. Rossi, V. Tedeschi, G. Tirone, M. Xu, and D. Yakir. 2003. Modeling temporal and large-scale spatial variability of soil respiration from soil water availability, temperature and vegetation productivity indices. *Global Biogeochem. Cycles* 17:1104-1119.

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## **10. Comunicações**

### **10. Communications**

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Comunicações orais por convite / Oral communications by invitation

João S. Pereira, “Vanishing and unpredictable water supply, linking plant stress and ecosystem performance” Programme Linking Community and Ecosystem Ecology (LINKECOL) final conference, “Linking community and ecosystem ecology: recent advances and future challenges”; 18-21 May 2004, Palma de Mallorca, Spain. (co-authors M M. Chaves and M. C. Caldeira)

João S. Pereira, “Carbon Balance in Mediterranean Forests” Seminar IGBP 2004 “Global Change and Sustainability”, 15-17 April 2004, Évora, Portugal, (co-authors, Banza, J., Correia, A.P., Silva, J., Pita, G., Rodrigues, A. & Carneiro, M.)

João S. Pereira, “Dos incêndios ao desenvolvimento, Debate sobre Florestas e Fogos Florestais”, Presidente da República Portuguesa, Portalegre, 15 April 2004

João S. Pereira, “As Florestas e o Conhecimento das Plantas” in Symposium “O Progresso dos Conhecimentos em Biologia Vegetal” 11 Dec. 2003. Instituto de Tecnologia Química e Biológica (ITQB), Oeiras (co-author, António Monteiro Alves).

João S. Pereira, “A sustentabilidade das florestas portuguesas e o fogo”, in “Sessão de abertura do ano de actividades de 2003-2004 da Sociedade de Ciências Agrárias de Portugal (SCAP)” 27 November 2003, Lisboa. (co-author, José Miguel Cardoso Pereira).

João S. Pereira, “Sustentabilidade da floresta e serviços do ecossistema: a floresta do futuro”, in “II Semana Florestal Internacional Floresta e silvicultura no espaço do sudeste atlântico”, 29 October 2003, Porto

João S. Pereira, “Balance de Carbono en Ecosistemas Mediterráneos”, in “VII Congreso Nacional da Asociación Española de Ecología Terrestre - España ante los Compromisos del Protocolo de Kyoto: Sistemas naturales y Cambio Climático”. 2 a 4 July 2003, Barcelona.

João S. Pereira, “Full carbon balance in a eucalypt plantation in Portugal. Society for Experimental Biology Main Meeting, March 31 - April 4, 2003. Southampton, UK (co-autores, Pita, G., Silva J., Fabião, A., Carneiro, M., Nogueira, C., Rodrigues, A. e Ribeiro, E.)

João S. Pereira, “Carbon flux in Mediterranean evergreen oak woodlands”, in “Optimisation of water use by plants in the Mediterranean”, 24-27 March 2003, Cala Bona, Mallorca, Espanha.

João S. Pereira, “Florestas: Promover o desenvolvimento sustentável” in Exposição Engenho e Obra. Projectos para Portugal. Diálogos sobre o futuro - 18 Fev. 2003, Lisboa.

João S. Pereira, “A sustentabilidade da floresta face ao futuro”, in Congresso Internacional sobre a “Protecção da Floresta” 31 Jan. – 1 Feb. 2003, Mirandela, Portugal

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