

**Curriculum Vitae**  
**Dr. Josep G. Canadell**

*Last update:*  
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## Contact

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## Education

B.S. Biology (Biology)	1984	University Autonomous of Barcelona, Spain
M.S. Biology (Terrestrial Ecology)	1988	University Autonomous of Barcelona, Spain
Ph.D. Biology (Terrestrial Ecology)	1995	University Autonomous of Barcelona, Spain

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## Professional Experience

Executive Director of the Global Carbon Project (GCP), the first joint project of the Earth System Partnership (ESSP) sponsored by: the International Geosphere-Biosphere Programme (IGBP), the International Human Dimension Programme (IHDP, the World Climate Research Programme (WCRP), and Diversitas. For information on the GCP, please visit: [www.globalcarbonproject.org](http://www.globalcarbonproject.org)

2001-to pres.	Executive Director of the Global Carbon Project (GCP), a joint project of the Earth System Science Partnership (ESSP), CSIRO, Canberra, Australia Research Scientist, CSIRO Marine and Atmospheric Research, Canberra, Australia Research Deputy Director, Atmosphere and Land Observations and Analyses, CSIRO Marine and Atmospheric Research, Canberra Australia (from 2009)
1998-2003	Executive Director of the Global Change and Terrestrial Ecosystems (GCTE) core project of IGBP, CSIRO Sustainable Ecosystems and the Australian National University, Canberra, Australia
1998-2000	Director of the Impacts Center for Southeast Asia (IC-SEA), Bogor, Indonesia.
1995-1998	Scientific Officer for Global Change and Terrestrial Ecosystems (GCTE), Stanford University, California, USA; and research associate at Stanford University
1993-1994	Research Associate, University of California, Berkeley, California, USA
1992	Adjunct Professor, San Diego State University, San Diego, CA, USA
1991	Lecturer, San Diego State University, San Diego, CA, USA
1987-1990	Field and Lab Assistant Professor - Ecology, University Autonomous of Barcelona, Spain
1986	Assistant Professor, University Autonomous of Barcelona, Spain
1985	Specialist Technician, Department of Environment, Catalonian Autonomous Government, Spain

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## Current Journal Editorial Board Member

Current Opinion in Environmental Sustainability  
Earth System Dynamics  
Carbon Balance and Management

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## Current Scientific Board Member

- Member of the Science Advisory Board for Oak Ridge National Laboratory Climate Change Program (CCP), Tennessee, US Department of Energy, USA
- Member of the Advisory Board for GHG-Europe - Greenhouse gas management in European land use systems. VII Framework Program.
- Member of the Scientific Advisory Board for Climate Change and Solutions, a Master in Science Program, Northern Arizona University, Flagstaff, USA.
- Member of Scientific Greenhouse Gases Panel on tropical peatlands for AusAID and Department of Climate Change and Energy Efficiency, Australia

## **Professional Recognition**

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Member of the United Nations Intergovernmental Panel on Climate Change (Fourth Assessment Report) awarded the Nobel Peace Price in 2007.

## **Guest Journal Editor/Book Editor**

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Biogeosciences, Cambridge University Press, Climatic Change, Current Opinion in Environmental Sustainability, Ecological Applications, Journal of Vegetation Science, Plant and Soil, Science in China, Springer, Tellus, Vegetatio, Wiley

## **Journal Reviews**

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Agriculture Ecosystems and Environment, Applied Energy, Australian Journal of Plant Physiology, Biogeochemistry, Canadian Journal of Forest Research, Carbon Balance and Management, Climatic Change, Current Opinion in Environmental Sustainability, Ecologic Economics, Ecological Modeling, Ecological Monographs, Ecology, Ecological Research, Energy Policy, Frontiers in Ecology and the Environment, Functional Ecology, Geophysical Research Letters, Global Change Biology, Journal of Ecology, Journal of Vegetation Sciences, Journal of Climate, International Journal of Wildfire, Madroño, New Phytologist, Land Degradation and Development, Landscape Ecology, Nature, Nature Geosciences, Nature Climate Change, Oceanography, Oecologia, Plant and Soil, Proceedings of the National Science Academy of the United States of America, Science, Science in China, Tellus, Tropical Research Ecology, Vegetatio

## **Publications (peer reviewed)**

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Download pdf files: [http://www.globalcarbonproject.org/who\\_is\\_who/pep\\_personal.htm](http://www.globalcarbonproject.org/who_is_who/pep_personal.htm)

Citation counts: >6000

H-index: 32

Research ID: <http://www.researcherid.com/rid/E-9419-2010>

120. Sitch S, Friedlingstein P, Nicolas Gruber N, Steve Jones S, Murray-Tortarolo G et al. (2012) Trends and drivers of regional sources and sinks of carbon dioxide over the past two decades. **Biogeosciences** (submitted).
119. Peters GP, Andrew RM, Boden T, Canadell JG, Ciais P, Le Quéré C, Marland G, Raupach MR, Wilson C (2012) The mitigation challenge to stay below two degrees. **Nature Climate Change** (in review).
118. Piao S, Stephen Sitch, Philippe Ciais, Pierre Friedlingstein, Philippe Peylin4 Xuhui Wang, Anders Ahlström, Alessandro Anav, Josep G. Canadell et al. (2012) Evaluation of terrestrial carbon cycle models for their sensitivity to climate variability and the observed

- rise in atmospheric CO<sub>2</sub> abundance. **Global Change Biology** (in review).
117. Kirschke et al. (2012) Three decades of methane sources and sinks: budgets and variations. **Nature Geoscience** (submitted).
116. Ciais P, Gasser T, Paris JD, Caldeira K, Raupach MR, Canadell JG, Patwardhan A, Friedlingstein P, Piao SL, Gitz V (2012) Attributing the increase of atmospheric CO<sub>2</sub> to emitters and absorbers. **Nature Climate Change** (in review).
115. Patra PK, Canadell JG, Houghton, RA, Piao SL, Oh N-H, Ciais P, Manjunath KR, Chhabra A, Wang T, Bhattacharyan T, Bousquet P, Hartman J, Ito A, Mayorga E, Niwa Y, Raymond P, Sarman VVSS, Lasco R (2012) The carbon budget of South Asia. **Biogeosciences** Disc. 9: 13537–13580.
114. Haverd V, Raupach MR, Briggs PR, Canadell JG, Davis, SJ, Law RM, Meyer CP, Peters GP, Pickett-Heaps C, Sherman B (2012) The Australian Terrestrial Carbon Budget. **Biogeosciences** Disc. 9: 12259-12308.
113. Haverd V, Raupach MR, Briggs PR, Canadell JG, Isaac P, Pickett-Heaps C, Roxburgh SH, van Gorsel, E, Viscarra-Rosset, RA, Wang Z (2012) Multiple observation types reduce uncertainty in Australia's terrestrial carbon and water cycles. **Biogeosciences** Disc. 9: 12181-12258.
112. Hugelius G, Tarnocai C, Broll G, Canadell JG, Kuhry P, Swanson DK (2012) The Northern Circumpolar Soil Carbon Database: spatially distributed datasets of soil coverage and soil carbon storage in the northern permafrost regions. **Earth System Science Data Disc.**, 5: 707–733.
111. Houweling S, Badawy B, Baker DF, Basu S, Belikov D, Bergamaschi P, Bousquet P, Broquet G, Butler T, Canadell JG et al. (2012) Iconic CO<sub>2</sub> Time Series at Risk. **Science** 337: 1038-1039.
110. Vayreda J, Gracia M, Canadell JG, Retana J (2012) Spatial Patterns and Predictors of Forest Carbon Stocks in Western Mediterranean. **Ecosystems**, DOI: 10.1007/s10021-012-9582-7.
109. Ignaciuk A, Rice M, Bogardi J, Canadell JG, Dhakal S, Ingram J, Leemans R, Rosenberg M (2012) Responding to Complex Societal Challenges: A Decade of Earth System Science Partnership (ESSP) Interdisciplinary Research. **COSUST** 4: 1-12. DOI 10.1016/j.cosust.2011.12.003.  
<http://www.sciencedirect.com/science/article/pii/S1877343511001370>
108. Patra P, Canadell JG, Lal S (2012) The rapidly changing greenhouse gases (GHG) budget of Asia. **EOS** 93: 237.
107. Peters G., Marland G, Le Quéré C, Boden T, Canadell JG, Raupach RR (2012) CO<sub>2</sub> emissions rebound after the Global Financial Crisis. **Nature Climate Change** 2: 2–4 doi. [10.1038/nclimate1332](https://doi.org/10.1038/nclimate1332)
106. Pan Y, Birdsey R, Fang J, Houghton R, Kauppi P, Kurz WA, Phillips OL, Shvidenko A, Lewis SL, Canadell JG, Ciais P, Jackson RB, Pacala P, McGuire AD, Piao S, Rautiainen A, Sitch S, Hayes D (2011) A Large and Persistent Carbon Sink in the World's Forests. **Science** 333: 988-993.
105. Canadell JG, Ciais P, Gurney K, Le Quéré C, Piao S, Raupach MR, Sabine CL (2011) An international effort to quantify regional carbon fluxes. **EOS** 92: 81-82.
104. Raupach MR, Canadell JG (2011). Relative effects of forcings and feedbacks on warming (Chapter Box). In Climate Change: Global Risks, Challenges and Decisions (Eds.

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103. Canadell JG, Raupach MR (2011). Changes in anthropogenic CO<sub>2</sub> emissions (Chapter Box). In: Climate Change: Global Risks, Challenges and Decisions (Eds. Richardson KS, Steffen WL, Liverman D). **Cambridge University Press**, Cambridge, pp. 77-79.
102. Canadell JG, Raupach MR (2011). Future of the terrestrial carbon sink (Chapter Box). In: Climate Change: Global Risks, Challenges and Decisions (Eds. Richardson KS, Steffen WL, Liverman D). **Cambridge University Press**, Cambridge, pp. 90-91.
101. Peñuelas J, Canadell JG, Ogaya R (2011) Increased water-use-efficiency during the 20<sup>th</sup> century did not translate into enhanced tree growth. **Global Ecology and Biogeography** 20: 597–608. DOI: 10.1111/j.1466-8238.2010.00608.x
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97. Canadell JG (2010) Carbon balance and implications for climate change. In: Second Report on Climate Change in Catalonia (Spain). **Generalitat de Catalunya**, Barcelona (in Catalan).
96. Canadell JG, editor (2010) Carbon sciences for a new world. **Current Opinion in Environmental Sustainability** 2: 209-312. Carbon and Nitrogen Cycles. GCP Special Issue.
95. Canadell JG (2010) Carbon sciences for a new world. **Current Opinion in Environmental Sustainability** 2: 209. doi [10.1016/j.cosust.2010.08.001](https://doi.org/10.1016/j.cosust.2010.08.001).
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- climate protection. **Frontiers in Ecology and the Environment** 9: 174-182, doi:10.1890/090179.
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  86. Leemans R, Asrar G, Busalacchi A, Canadell J, Ingram J, Larigauderie A, Mooney M, Nobre C, Rice M, Schmidt F, Seitzinger S, Virji H, Vorosmarty C, Young O (2009) Developing a common strategy for integrative global environmental change research and outreach: the Earth System Science Partnership (ESSP). **Current Opinions in Environmental Sustainability** 1: 4-13, doi: 10.1016/j.cosust.2009.07.013.
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Online access: [http://www.biogeosciences.net/special\\_issue37.html](http://www.biogeosciences.net/special_issue37.html)
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Online access: <http://www.iop.org/EJ/abstract/1748-9326/3/4/044006/>
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Online access: <http://www.biogeosciences.net/5/1601/2008/bg-5-1601-2008.html>

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76. Schuur EAG, J Bockheim, JG Canadell, E Euskirchen, CB Field, SV Goryachkin, S Hagemann, P Kuhry, P Lafleur, H Lee, G Mazhitova, F E Nelson, A Rinke, V Romanovsky, N Shiklomanov, C Tarnocai, S Venevsky, JG. Vogel, SA Zimov (2008) Vulnerability of permafrost carbon to climate change: implications for the global carbon cycle. **BioSciences** 58: 701-714.
75. Canadell JG, Raupach MR (2008) Managing Forests for Climate Change Mitigation. **Science** 320: 1456-1457, doi: 10.1126/science.1155458.
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73. Canadell JG, Le Quéré C, Raupach MR, Field CB, Buitenhuis ET, Ciais P, Conway TJ, Gillett NP, Houghton RA, Marland G (2007) Contributions to accelerating atmospheric CO<sub>2</sub> growth from economic activity, carbon intensity, and efficiency of natural sinks. **Proceedings of the National Academy of Sciences** 104: 18866–18870, doi\_10.1073\_pnas.0702737104  
Top 10 in Faculty of 1000 for Ecology; top 20 PNAS for the month published.
72. Raupach MR, Canadell JG (2008). Observing a vulnerable carbon cycle. In: The Continental-Scale Greenhouse Gas Balance of Europe (eds. AJ Dolman, R Valentini, A Freibauer). (**Springer**, New York). p. 5-32
71. Wieder K, Canadell JG, Limpens J, Moore T, Nigel Roulet, N, Schaeppman-Strub G (2007) Peatlands and the carbon cycle: From local processes to global implications. **EOS** 88: 295.
70. Raupach MR, G. Marland, P. Ciais, C. LeQuere, J.G. Canadell, C.B. Field (2007) Global and regional drivers of accelerating CO<sub>2</sub> emissions. **Proceedings of the National Academy of Sciences** 104: 10288-10293.
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67. Schlamadinger B, N. Bird, S. Brown, J. Canadell, L. Ciccarese, B. Clabbers, M. Dutschke, J. Fiedler, A. Fischlin, C. Forner, A. Freibauer, N. Hoehne, T. Johns, M. Kirschbaum, A. Labat, G. Marland, A. Michaelowa, L. Montanarella, P. Moutinho, D. Murdiyarso, W. Ohlyantcabal, N. Pena, J. Penman K. Pingoud, Z. Rakonczay, E. Rametsteiner, J. Rock, M. J. Sanz, U. Schneider, A. Shvidenko, M. Skutsch, P. Smith, Z. Somogyi, E. Trines, M. Ward, Y. Yamagata (2007) Options for including LULUCF activities in a post-2012 international climate agreement. Part I – Synopsis of LULUCF under the Kyoto Protocol and Marrakech Accords and criteria for assessing a future agreement. **Environmental Science & Policy** 10: 271-282.
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696 citations, 24 March 2012.

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