ROSER MATAMALA

Education

Ph.D. in Biological Sciences, 1997. University of Barcelona (Spain), Smithsonian Environmental Research Center, Edgewater, MD. Area of Specialization: Ecology.
M.S. in Plant Biology, 1993. University of Barcelona (Spain).
B.S. in Biology, 1991.University of Barcelona (Spain)

Professional appointments

2009-present	Terrestrial Ecologist, 707, Argonne National Laboratory
2005-2009	Terrestrial Ecologist, 706, Argonne National Laboratory
2002-2005	Assistant Ecologist, 705, Argonne National Laboratory
2000-2002	Research Associate, Argonne National Laboratory, Argonne, IL, USA
1997-2000	Research Associate, Duke University, Durham, NC, USA
1993-1996	Plant Biologist, Smithsonian Environment Research Center, Edgewater, MD, USA
1993-1997	Graduate Student, University of Barcelona, Barcelona, Spain
1991-1993	Research Assistant, Institut de Recerca i Tecnologia Agroalimentaries, IRTA, Cabrils, Spain

Publications (Total 30+, [Google Scholar, citations: 2279, h-index: 21]).

Gilmanov T, Baron V, Hanan NP, Matamala R, Prueger J, Hatfield J. CO_2 uptake and ecophysiological parameters of the grain crops in midcontinent North America: Estimates from flux tower measurements. *Agriculture, Ecosystems and Environment* (accepted August 2012).

Gomez-Casanovas, N., Matamala, R., Cook, D.R., Gonzalez-Meler, M.A. 2012. Net ecosystem exchange affects the autotrophic and heterotrophic components of soil respiration at different time scales in prairie grasslands. *Global Change Biology*, 18: 2532-45.

Schaefer, Kevin; Schwalm, Christopher R.; Williams, Chris; et al. 2012. A model-data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research-Biogeosciences, 117. G03010 DOI: 10.1029/2012JG001960

Garten, C.T., Brice, D.J., Castro, H.F. et al 2011. Response of "Alamo" switchgrass tissue chemistry and biomass to nitrogen fertilization in West Tennessee, USA. Agriculture Ecosystems & Environment, 140: 289-297.

Xiao, Jingfeng; Zhuang, Qianlai; Law, Beverly E.; et al. 2011. Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. Agricultural and Forest Meterorology, 151: 60-69.

Yi, C.X., Ricciuto, D., Li, R. et al., 2010. Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 5: Article number 034007.

Schwalm, C.R., Williams, C.A., Schaefer, K. et al., 2010. A model-data intercomparison of CO_2 exchange across North America: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research-Biogeosciences, 115: Article number G00H05.

Garten CT, Smith JL, Tyler DD et al., 2010. Intra-annual changes in biomass, carbon, and nitrogen dynamics at 4-year old switchgrass field trials in west Tennessee, USA. Agr Eco & Environ 136:177-84.

Xiao J, Zhuang Q, Law BD, et al. 2010. A Continuous measure of gross primary production for the conterminous United Sates derived from MODIS and AmeriFlux data. Rem Sen Environ 576-91.

Xiao J, Zhuang Q, Baldocchi DD et al. 2008. Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. Agr and For Met 148:1827-47.

Matamala R, Jastrow DJ, Miller RM, Garten CT. 2008. Temporal changes in the distribution of C and N stocks in a restored tallgrass prairie in the U.S. Midwest. Eco App 18: 1470-88.

Pritchard SG, Strand AE, McCormack ML, Davis MA, Finzi AC, Jackson RB, Matamala R, Rogers HH, Oren R. 2008. Fine root dynamics in a loblolly pine forest are influenced by Free-Air-CO_2-Enrichment (FACE): a six year minirhizotron study. GCB 14**:** 588-602.

Allison VJ, Z Yermakov, RM Miller, JD Jastrow, R Matamala. 2007. Assessing soil microbial community composition across landscapes: Do surface soils reveal patterns? SSSAJ 71:730-734.

Allison VJ, Z Yermakov, RM Miller, JD Jastrow, and RMatamala. 2007. Using landscape and depth gradients to decouple the impact of correlated environmental variables on soil microbial community composition. Soil Bio and Bioch 39:505-516.

Finzi AC, Moore D, DeLucia EH, Lichter J, Kim HS, Matamala R, Jackson RB, McCarthy H, Oren R, Pippen JS, Schlesinger WH. 2006. Progressive Nitrogen Limitation of Ecosystem Processes under Elevated CO_2 in a Warm-Temperate Forest. Eco 87: 15-25.

Schlesinger WH, E S Bernhardt, EH DeLucia, et al., 2006. The Duke forest FACE experiment: CO_2 enrichment of a loblolly pine forest. In ES 187, J Nosberger, SP Long, RJ Norby, M Stitt, GR Hendrey, and H Blum (eds.) Managed Ecosystems and CO_2: Case Studies, Processes and Perspectives, Springer-Verlag, New York. Pp. 197-212.

Allison VJ, RM Miller, JD Jastrow, R Matamala, DR Zak. 2005. Changes in soil microbial community structure in a tallgrass prairie chronosequence. SSSAJ 69:1412-21.

Jastrow JD, RM Miller, R Matamala, RJ Norby, TW Boutton, CW Rice, CE Owensby. 2005. Elevated atmospheric CO_2 increases soil carbon. GCB 11:2057-64.

Matamala R, MA Gonzalez-Meler, JD Jastrow, R Norby, WH Schlesinger. 2004 Response to Comment on: Impacts of Fine Root Turnover on Forest NPP and Soil C Sequestration Potential. Science 304:1745.

Matamala R, MA Gonzalez-Meler, JD Jastrow, R Norby, WH Schlesinger. 2003. Impacts of fine root turnover on forest NPP and soil C sequestration potential. Science 302: 1385-87.

Pataki DE, DS Ellsworth, RD Evans, et al., 2003. Tracing changes in ecosystem function under elevated carbon dioxide conditions. BioSc 53: 805-18.

Allen AS, Andrews JA, Finzi AC, Matamala R, Richter DR, Schlesinger WH. 2000. Effects of Free-Air CO_2 Enrichment (FACE) on below-ground processes in a loblolly pine forest. Eco App 10: 437-48.

Andrews JA, Matamala R, Westover KM, Schlesinger WH. 2000. Temperature effect on the diversity of soil heterotrophs and the $\delta^{13}C$ of soil-respired CO_2. Soil Bio & Bioch 32: 699-706.

Luo Y L, JA Andrews, L White, R Matamala, KVR Schafer, W H Schlesinger. 2000. Elevated CO_2 differentiates ecosystem carbon processes: A deconvolution analysis of Duke Forest FACE data. Eco Mono 71:357-76.

Matamala R, Schlesinger WH. 2000. Effects of atmospheric CO_2 enrichment on fine root production and activity in an intact temperate forest ecosystem. GCB 6: 967-80.

DeLucia, EH, Hamilton JG, Shawna LN, et al., 1999. Net primary production of a forest ecosystem with experimental CO_2 enrichment. Science 284: 1177-79.

Andrews J A, Matamala R, Harrison K, Schlesinger WH. 1999. Separation of root from total soil respiration using ^{13}C labeling during free-air CO_2 enrichment (FACE). SSSAJ 63: 1429-35.

Matamala R, Drake BG. 1998. The influence of atmospheric CO_2 enrichment on plant-soil nitrogen interactions in a wetland plant community on the Chesapeake Bay. Plant & Soil 210: 93-101.

Drake BG, Peresta G, Beugeling E, Matamala R. 1996. Long-term elevated CO_2 exposure in a Chesapeake Bay wetland: Ecosystem gas exchange, Primary production and tissue nitrogen. Carbon Dioxide and Terrestrial Ecosystems. Ed. Koch G W and Mooney H A pp. 197-214.

Drake BG, Muehe M, Peresta G, González-Meler MA, Matamala R. 1996 Acclimation of photosynthesis, respiration and ecosystem carbon flux of a wetland on Chesapeake Bay, Maryland to elevated atmospheric CO_2 concentration. Plant & Soil 187: 111-8.

Peñuelas J, R Matamala. 1993. Variations in the mineral-composition of herbarium plant-species collected during the last 3 centuries. Jour Exp Bot, 44: 1523-25.

Peñuelas J, R Matamala. 1990 Changes in N and S leaf content, stomatal density and specific leaf area of 14 plant species during the last three centuries of CO_2 increase. Jour Exp Bot 41: 1119-24.

Review, Advisory, Professional Memberships, other

1997-present	Professional memberships: Ecological Society of America (1997), Soil Science Society of America (2000) Soil Science Society (2005) and, American Geophysical Union (2005)
1997-present	Occasional reviewer for, The New Phytologist, Tree Physiology, Oecologia, Plant and Soil, Global Change Biology and SSSJ.
1997-present	Collaborator in DOE-BER funded projects.
2000-presemt	Co-Pi in DOE-BER funded projects.
2004-present	Principal investigator of a DOE-BER funded project.
2004-present	Participant in the AmeriFlux Network,
2004-present	Participant, North American Carbon Program (NACP) Interdisciplinary Workshops Participant in NACP teleconferences and synthesis efforts.
2005	Key speaker at the International COST-E38 Conference, Tartu, Estonia.
2005	Local organization committee member for the SES Meeting
2005	DOE Global Change Education Program Review Panel, Washington D.C.

2005-present	Mentor to Argonne National Laboratory CCI, SULI and PST student, Ms. Linesha Sims, Chris Bouma, John Odackal, John Sarsfield, Ryan Bougart, Stephan Vandenbroucke, Stefanie Burns, Noemie Laurent, Erin Skalleup, Lyndi Johnson.
2006	Invited speaker at the AGU Conference, San Francisco, CA.
2006-present	Member of the Mid Continent Intensive (MCI) Studies Program
2007	Invited NCRR review panel
2009	Invited DOE Global Change Education Program Review Panel, Washington D.C.
2009	Invited poster presentations at the NACP Conference, San Diego, CA.
2009	Invited speaker at ESA Meeting Linking roots and soil session, Alburquerque, NM.
2009	Invited speaker at the AmeriFlux Annual Investigators Meeting, Washington D.C.
2009	Invited DOE-BER Early Career Panel Review, Washington D.C.
2010	Invited DOE Global Change Education Program Review Panel
2010	Invited poster presenter at the DOE, Office of Science Graduate Fellowship Research Meeting, Argonne National Laboratory, Argonne, IL.
2010-present	Argonne's Postdoctoral Committee Member. Biosciences Division representative.
2011	Participant at AGU Conference, San Francisco, CA. poster presenter. Participant at NACP Conference New Orleans, LA. 7 poster presentations.
2012	Organizer of the "Scaling Root Processes: Global Impacts" Workshop for DOE-BER, TES. March 7-9, 2012.