

DAVID MOORE

School of Natural Resources and the Environment
1955 E. 6th Street
Office of Arid Land Studies
University of Arizona
Tucson, AZ 85721
davidjpmoore@email.arizona.edu Tel: +1 (520) 621 9998
<http://www.snr.arizona.edu/moore>

CHRONOLOGY OF EDUCATION

- 2000 –05 PhD, Tree Growth and Carbon Balance in a Temperate Forest Exposed to Elevated Carbon Dioxide for Eight Years, Program in Ecology & Evolutionary Biology, University of Illinois, Urbana Champaign
- 1995 –99 B.Sc. First Class Honors in Botany, National University of Ireland, Dublin.

CHRONOLOGY OF EMPLOYMENT

- 2011 – Tenure Track Associate Professor, School of Natural Resources and the Environment, University of Arizona, Tucson, AZ, USA.
- 2010 –11 Visiting Scientist, National Ecological Observatory Network, Boulder, CO, USA
- 2007 –11 Lecturer in Environmental Monitoring & Modelling, Department of Geography, King's College London (Asst Prof equivalent).
- 2006 –07 Postdoctoral Researcher, Ecosystem modelling and data assimilation – integration of the SIPNET model with flux measurements, Co-operative Institute for Research in Environmental Science, University of Colorado and the National Center for Atmospheric Research
- 2000 –01 Teaching Assistant, Introductory Biology, University of Illinois, Urbana Champaign
1999. Ecologist, Dúchas, Irish National Parks and Wildlife Service, Botanical inventory and conservation assessment of shingle beaches in Ireland.

PUBLICATIONS

*Note: * = substantially based on work done as a graduate student. My name is identified in **bold**. The names of the students mentored who are co-authors are identified by an underline and with the degree sought in superscript^{MS} or ^{PhD} to facilitate identification during the review process. Relevance and my role in the last five years' publications are annotated [in brackets] below the citation.*

Chapters in scholarly books and monographs

1. Schlesinger WH, Bernhardt ES, DeLucia EH, Ellsworth DS, Finzi AC, Hendrey GR, Hofmockel KS, Lichter J, Matamala R, **Moore DJP**, Oren R, Pippin JS, Thomas RB (2006) The Duke Forest FACE experiment: CO₂ enrichment of a loblolly pine forest Managed Ecosystems and CO₂ pp:197-212 *Springer Berlin Heidelberg [review]* *

2. DeLucia EH, **Moore** DJP, Hamilton JG, Thomas RB, Springer CJ, Norby RJ (2005) The changing role of forests in the global carbon cycle: responding to elevated carbon dioxide in the atmosphere *Climate Change and Global Food Security*, 179-214 [review] *

Refereed journal articles (published or accepted in final form)

Graduate students whose training I contributed to are shown with ^{PhD} or ^{MSc}

3. Shao P, Zeng X, **Moore** DJP, Zeng X (2013) Soil microbial respiration from observations and Earth System Models. *Environmental Research Letters* (Accepted Sept 2013)
4. **Moore** DJP, Trahan NA^{PhD}, Wilkes P^{MSc}, Stephens B, Quaife T, Elder K, Desai A, Negrón J, Monson RK (2013) Persistent reduced ecosystem respiration after insect disturbance in high elevation forests. *Ecology Letters* Volume 16, Issue 6, pages 731–737 DOI: 10.1111/ele.12097
5. Scott-Denton L, **Moore** DJP, Rosenbloom N, Kittel T, Burns SP, Schimel DS, Monson RK (2013) Forecasting net ecosystem CO₂ exchange in a subalpine forest using model-data assimilation combined with simulated climate and weather generation *Journal of Geophysical Research – Biogeosciences* Volume 118, Issue 2, pages 549–565 DOI: 10.1002/jgrg.20039
6. Hicke J, Allen CD, Desai AR, Dietze M, Hall R, Hogg ET, Kashian, D, **Moore** DJP, Raffa K, Sturrock R, Vogelmann J (2012) The Effects of Insect and Pathogen Outbreaks on the Carbon Cycle: A Review, *Global Change Biology* 18, 7–34, doi: 10.1111/j.1365-2486.2011.02543.x
7. Desai AR, **Moore** DJP, Ahue WK, Wilkes PJ, deWekker SFJ, Campos SFJ, Stephens BB, Brookes BG, Monson RK, Quaife T, French J, Aulenbach SM, Schimel DS (2011) Seasonal pattern of regional carbon balance from the Airborne Carbon in the Mountains Experiment 2007. *Journal of Geophysical Research* VOL. 116, G04009, doi:10.1029/2011JG001655
8. Zobitz JM, Desai AR, **Moore** DJP, Chadwick M. (2011) A primer in ecological data assimilation using MCMC. *Oecologia* 167(3):599-611 DOI 10.1007/s00442-011-2107-9
9. Drake JE, Gallet-Budynek A, Hofmockel KS, Bernhardt ES, Billings SA, Jackson RB, Johnsen KS, Lichter J, McCarthy HR, McCormack ML, **Moore** DJP, Oren R, Palmroth S, Phillips RP, Phippen JS, Pritchard SG, Treseder KT, Schlesinger WH, DeLucia EH Finzi AC (2011) Increases in the Flux of Carbon Belowground Stimulates Nitrogen Uptake and Sustains the Long-Term Enhancement of Forest Productivity under Elevated CO₂. *Ecology Letters* 14: 4, 349–357. *
10. Richardson AD, Williams M, Hollinger D, **Moore** DJP, Dail B, Davidson EA, Scott NA, Evans, RS, Hughes H, Lee JT, Rodrigues C, Savage K (2010) Estimating parameters of a forest ecosystem C model with measurements of stocks and fluxes as joint constraints *Oecologia* 164:25-40
11. Sun J, Oncley SP, Burns SP, Stephens BB, Lenschow DH, Campos T, Monson RK, Schimel, DS, Sacks WJ, DeWekker SFJ, Lai, CT, Lamb B, Ojima D, Ellsworth PZ, Sternberg LSL, Zhong S, Clements C, **Moore** DJP, Anderson DE, Watt AS, Hu J,

- Tschudi M, Aulenbach S, Allwine E, Coons TA, (2010) Multi-scale, Multi-disciplinary Investigation of Ecosystem-Atmosphere CO₂ exchange over the Rocky Mountains of Colorado. *Bulletin of the American Meteorological Society* **91**: 209-230
12. Hu J^{PhD}, **Moore** DJP, Riveros-Iregui DA, Monson RK (2010c) Modeling whole-tree carbon assimilation rate using observed transpiration rates and needle sugar carbon isotope ratios *New Phytologist* **185**(4) 1000-1015
 13. Hu J^{PhD}, **Moore** DJP, Monson RK (2010b) Climate controls over the seasonal carbon isotope dynamics of subalpine forest trees *Plant Cell and Environment*, **33**(1) 35-47
 14. Hu J^{PhD}, **Moore** DJP, Burns SP, Monson RK (2010a) Longer growing seasons lead to less carbon sequestration by a subalpine forest. *Global Change Biology* **16**(2) 771-783
 15. Turnipseed AA, Burns SP, **Moore** DJP, Hu J, Guenther AB Monson RK (2009) Controls over ozone deposition to a high elevation subalpine forest *Agricultural and Forest Meteorology* **149**,1447-1459.
 16. **Moore** DJP, Taneva L, Gonzalez-Meler MA, Pippen JS, Kim HS, DeLucia EH. (2008) The effect of carbon dioxide enrichment on apparent stem respiration from *Pinus taeda* L. is confounded by high levels of soil carbon dioxide. *Oecologia*, **158**, 1-10. *
 17. **Moore** DJP, Hu J^{PhD}, Sacks WJ, Schimel DS, Monson RK (2008) Estimating transpiration and the sensitivity of carbon uptake to water availability in a subalpine forest using a simple ecosystem process model informed by measured net CO₂ and H₂O fluxes. *Agricultural and Forest Meteorology*, **148**, 1467-1477.
 18. Zobitz JM, **Moore** DJP, Sacks WJ, Monson RK, Bowling DR, Schimel DS (2008) Integration of process-based soil respiration models with whole-ecosystem CO₂ measurements. *Ecosystems*, **11**, 250-269
 19. Monson RK, Trahan N^{PhD}, Rosenstiel TN, Veres P, **Moore** DJP, Wilkinson M, Norby RJ, Tjoelker MG, Briske DD, Karnosky DF, Fall R. (2007) Isoprene emission from terrestrial ecosystems in response to global change. *Philosophical Transactions of The Royal Society A-Mathematical Physical and Engineering Sciences* **365** (1856): 1677-1695
 20. **Moore** DJP, Aref S, Ho RM, Phippen JS, Hamilton J, DeLucia EH. (2006). Inter-annual variation in the response of *Pinus taeda* tree growth to long term Free Air Carbon dioxide Enrichment (FACE). *Global Change Biology* **12**:1367-1377*
 21. Finzi AC, **Moore** DJP, DeLucia EH, Kim HS, Jackson RL, Lichter J, McCarthy H, Oren R, Phippen JS, Schlesinger WH. (2006). Progressive nitrogen limitation of ecosystem processes under elevated CO₂ in a warm-temperate forest. *Ecology* **87**:15-25. *
 22. Norby RJ, DeLucia EH, Gielen B, Calfapietra C, Giardina CP, King JS, Ledford J, McCarthy HR, **Moore** DJP, Ceulemans R, De Angelis P, Finzi AC, Karnosky DF, Kubiske ME, Lukac M, Pregitzer KS, Scarascia-Mugnozza GE, Schlesinger WH, Oren R. (2005). Forest response to elevated CO₂ is conserved across a broad range of productivity. *Proceedings of the National Academy of Sciences* **102**:18052-18056. *
 23. DeLucia EH, **Moore**, DJP, and Norby RJ. (2005). Contrasting responses of forest ecosystems to rising atmospheric CO₂: implications for the global C cycle. (*Global Biogeochemical Cycles* **19**: GB3006, doi:10.1029/2004GB002346.) *

24. Ainsworth EA, Davey PA, Bernacchi CJ, Dermody OC, Heaton EA, **Moore** DJP, Morgan PB, Naidu SL, Yoo H, Zhu X, Curtis PS, Long SP (2002). A meta-analysis of elevated [CO₂] effects on soybean (*Glycine max*) physiology, growth and yield. *Global Change Biology* 8:695- 709. *

Scientific report (peer-reviewed by scientific panel)

25. Schimel DS, Keller M, Berukoff S, Kao R, Loescher H, Powell H, Kampe T, Moore DJP, Gram W 2011 Science Strategy: Enabling Continental-Scale Ecological Forecasting. National Ecological Observatory Network Inc. [Available online http://www.neoninc.org/sites/default/files/NEON_Strategy_2011u2.pdf]
26. **Moore** DJP, Wilson F (1999). The Shingle beaches of Ireland: An inventory and proposed classification for the National Parks and Wildlife Service, Ireland (*public report National Parks and Wildlife Service, Dublin, Ireland*).

GRANTS AND CONTRACTS

Federal

- 2013 Estimating carbon flux and storage: constraint of the Community Land Model using observations at different temporal scales (Lead PI), Department of Energy Office of Biological and Environmental Research, 09/01/2013 – 3 years (\$970,020) Commitment (person months): 0.5 mos. Summer.

[Lead PI and overall co-ordinator, lead on data assimilation and modeling team]

Collaborative Research and NEON: MSB Category 2: PaleON - a PaleoEcological Observatory Network to assess terrestrial ecosystem models (CO-PI), NSF Macrosystems Biology, 05/01/2013 – 5 years (\$5,113,060) Commitment (person months):0.3 mos. Summer.

[Co-ordinates all Modeling activities (with Co-PI Mike Dietze, Boston University) and leads the modeling and assimilation activities within the Site-Scale Data-Model Assimilation project. Lead PI of the Project is Jason McLachlan, University of Notre Dame]

- 2012 Modification of the impact of insect disturbance on carbon cycling by fire. National Science Foundation (Lead PI), NSF RAPID, 11/01/2012 – 1 years (\$199,684) Commitment (person-months): 0.5 mos. Summer.

[Lead PI and co-ordinator of the grant; mentored postdoc, grad students and technician]

- 2011 Collaborative Research and NEON: PaleON - a PaleoEcological Observatory Network to assess terrestrial ecosystem models National Science Foundation (Co-investigator/collaborator), Macrosystem Biology (Category 1):1065732, May 2011 – Aug 2013

[Participated significantly in the execution of the research (see presentations listed in CV) but not in the writing of the grant, candidate is an institutional PI on the subsequently funded renewal (NSF Macrosystems MSB Category 2: PaleON \$5.1m)]

2010 Carbon cycling dynamics in response to pine beetle infection and climate variation (Co-investigator/collaborator), US Department of Energy Terrestrial Carbon Program, (\$1,047,830)

[Participated in writing and execution of the grant, mentored students and postdocs, led the primary publication from this grant (Moore et al. 2013 Ecology Letters)]

2007 Comparative ecosystem analysis using inverse parameter estimation. National Science Foundation (0743251; Res Co-I), 3 years, March 1, 2008 – February 28, 2011, (\$398,000.00)

[Participated in writing and execution of the grant, mentored 2 postdocs, co-authored the primary publication from this grant (Scott-Denton et al. 2013 JGR Biogeosciences)]

State

2012 Drought tolerance and key physiological controls of water cycling in Poplar UA Water Sustainability Program (lead PI); Commitment (person-months): 0 Jan – June 2013 (\$10,000)

[Leader and co-ordinator of the grant, funds MSc student for 1 semester]

Hydrologically-driven Spatial Heterogeneity of Tree Productivity and Tree Climate Sensitivity in the Southwest. UA TRIF Water, Environment, and Energy Solutions (WEES; Co-I) 07/01/12 - 06/30/13 Commitment (person-months): 0.5 (\$39,994)

[Participated in writing and execution of the grant, mentored students, participated in collection and analysis of data; manuscripts in prep]

Moisture as a phenological driver: defining phenological functional types for Arizona and the Southwestern USA, Center for Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA) (Sole PI), May/June 2012 Commitment (person-months): 0.5 (\$9,127)

[Leader and co-ordinator of the grant, funds MSc student for 1 semester]

2004 *[Research grants prior to 2004 were written as a student all are <\$5,000]*

STEPS program Student grant (April 2004), University of California, Santa Cruz.

CaRTE Workshop Student Grant (January 2004), Global Change in Terrestrial Ecosystems.

Program in Ecology and Evolutionary Biology Research Fellowship. University of Illinois, Urbana.

2003 TERACC student travel grant (April 27-30, 2003), Global Change in Terrestrial Ecosystems.

2002 The Francis M. and Harlie M. Clark Summer Research Grant. University of Illinois, Urbana.

School of Integrative Biology Summer Travel Grant. University of Illinois, Urbana.

2001 The Francis M. and Harlie M. Clark Summer Research Grant. University of Illinois, Urbana.

School of Integrative Biology Summer Travel Grant. University of Illinois, Urbana.

International (while in UK & Ireland)

2009 The response of soil respiration to insect induced tree mortality: fusing eco-physiological measurements with ecosystem models Natural Environment Research Council (Sole PI), 18 months March 2010 – Sept 2011 (£56,850)

[Leader and co-ordinator of the grant, supported the start of the project that led to the DOE TCP grant (2010) and Moore et al 2013 Ecology Letters; supported Undergraduate research (KCL; E.Dynes, C.Gibson)]

2008 Predicting forest ecosystem responses to climate change. Central Research Fund, University of London (Sole PI), 18 Months March 2009- Sept 2010 (£2,800)

[Leader and co-ordinator of the grant, supported lab start up in UK]

[Research grants prior to 2004 were written as a student all are <\$5,000]

1998 Crawford-Hayes Summer Bursary (1998) Ecophysiology of an endangered saltmarsh grass *Puccinellia fasciculata*. Department of Botany, National University of Ireland, Dublin.

Botany Department Scholarship (1998/99), National University of Ireland, Dublin.

HONORS AND AWARDS

SERVICE/OUTREACH

(last 5 years. Period [.] indicates completed, hyphen [-] ongoing)

Local/state

National/international service/outreach

2013 - *Member National Ecological Observatory Network - Airborne flux measurement working group*

2012 - *Lead organizer: Annual Flux Course in Flux Measurement and Advanced Modeling*

2012 - *Chair: Working group – USA National Phenology Network Data Products WG*

2011 - *Member: Advisory Committee – USA National Phenology Network*

2011 - *Member: Steering Committee – NASA/NEON Scaling workshop (Spatial and Temporal Scaling in Continental-Scale Ecology Workshop 11-12 June 2012, Boulder, CO USA)*

2010 - *Member: Working group – NASA TE-Modeling Working Group*

2007 - 12 *Co-organizer: Annual Flux Course in Flux Measurement and Advanced Modeling*

Academic conference sessions

2013 Session chair B018. Constraining terrestrial ecosystem carbon uptake and storage using models and data *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting, San Francisco 2013 (upcoming)*

Session chair B025. Ecological Disturbance: observing and predicting the impacts of landscape disturbance *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting, San Francisco 2013 (upcoming)*

- 2012 Session chair B11C. Phenology Responses and Feedbacks to Biogeophysics, Disturbance, and Climate Change I *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting, San Francisco 2012*
- Session chair B13G. Phenology Responses and Feedbacks to Biogeophysics, Disturbance, and Climate Change II *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting, San Francisco 2012*
- Session chair B14C. Phenology Responses and Feedbacks to Biogeophysics, Disturbance, and Climate Change III *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting, San Francisco 2012*
- 2011 Session chair AGU: Network Enabled Science American Geophysical Union Fall Meeting, San Francisco, CA, 2011 Fall Meeting, San Francisco 2011.
- 2004 Seminar Session Moderator: 'Photosynthesis II', Aug 2004, *89th Annual Meeting of the Ecological Society of America.*

Departmental committee(s)

- 2012 *Faculty member, SNRE governance committee (ad hoc)*
Faculty member, SNRE Awards Committee
Faculty member, SNRE Curriculum & Instruction Committee
Faculty member, Global Change Management development group
- 2011 *Faculty member, SNRE governance committee (ad hoc)*
Faculty member, SNRE Awards Committee

College committee(s)

2012. *Faculty Member, CALS21, Visioning Session for Mid-career Faculty*

University Committees(s)

- 2011 - *Faculty member, University of Arizona Research Computing Steering Committee*

Other committees (internal/external)

King's College London

Department of Geography

- 2007-09 *Chair: Research Ethics Panel Geography, Gerontology & Social Care Workforce Research Unit*
- 2007-08 *Co-ordinator: Department of Geography Seminar Series*
- 2007 *Member: Undergraduate Teaching Committee*
- 2008-10 *Member: Postgraduate Research Committee*
- 2008-10 *Member: Postgraduate Research Staff-Student Committee*

School Social Science & Public Policy

- 2007-09 *Member: Schools of Humanities, Law and Social Science & Public Policy Research Ethics Sub Committee*

Journal Reviewer (2007-present)

Reviewed manuscripts for *Biology Letters*, *New Phytologist*, *Ecological Applications*, *Plant Cell and Environment*, *Trees Structure and Function*, *Physiologia Plantarum*, *Journal of Experimental Botany*, *Forest Ecology and Management*, *The Geographical Journal*, *International Journal of Biometeorology*, *Environmental Research Letters*, *Oecologia*, *Journal of Geophysical Research – Biogeosciences*.

Guest editor (occasional 2007-present)

Ecological Applications

Grant proposal reviewer

Czech Science Foundation, 2013

Grant proposal panel service

National Science Foundation, CYBERSEES program 2013

Societies

- 2007 – American Geophysical Union (AGU)
- 2005 –07 Ecological Society of America (ESA)
- 2007. British Ecological Society (BES)

MEDIA

- 2013 ATMOSNews “The bark beetle blues”, By Bob Henson, Apr 15, 2013
<https://www2.ucar.edu/atmosnews/opinion/9366/bark-beetle-blues>
UA News “Dead Forests Release Less Carbon Into Atmosphere Than Expected” By Daniel Stolte, March 22, 2013
<http://uanews.org/story/dead-forests-release-less-carbon-into-atmosphere-than-expected>
UA @ Work “Faculty Use Twitter to Get Students Focused In and Out of Class” By Daniel Stolte
<http://uaatwork.arizona.edu/story/faculty-use-twitter-get-students-focused-and-out-class>
- 2012 *Fluxcourse: Summer Course in Flux Measurements and Advanced Modeling*
<http://www.youtube.com/watch?v=wLuCTjpkVXE> [promotional video for the annual fluxcourse I organize]
- 2011 *Forest Pine Beetle Disturbance, Soil Carbon Cycling, & Climate Change*
<http://www.lostnomadmedia.com/portfolio/#pinebeetle> [short film explaining research carried out as part of a project funded by the US Department of Energy and the UK Natural Environment Research Council]

SCHOLARLY PRESENTATIONS

Seminar (Invited)

- 2013 **Moore**, DJP Development of a Calibrated MultiSpectral Imaging System for phenology monitoring. *The NEON Phenocam network: Envisioning the future of near-surface remote sensing, National Ecological Observatory Network 10/09 – 10/11 2013.*
- Moore**, DJP Carbon cycling in Western Forests. *School of Earth Sciences & Environmental Sustainability 04/18/2013 (seminar)*
- 2012 **Moore**, DJP. Studying the carbon cycle using observations and models. *Department of Atmospheric Sciences, University of Arizona on 02/24/2012 (seminar)*
- 2011 **Moore**, DJP. Forest carbon cycle responses to atmospheric and environmental change. *Laboratory for Tree Ring Research, University of Arizona on 11/30/2011 (seminar)*
- Moore**, DJP. Carbon cycling in forests of the Mountain West: plots, models, towers, planes and beetles. *Nichols School of the Environment, Duke University on 10/21/2011. (seminar)*
- Moore** DJP. Ecological responses to environmental change – measurements and models at different scales. *Atmospheric & Oceanic Sciences Dept. University of Wisconsin 10/10/2011 (seminar)*
- Moore**, DJP Combining models and data: the changing role of ecosystems. Harvard Forest, *Harvard Research Experience for Undergraduates Seminar Series 6/10/2011 (seminar)*
- Moore**, DJP. Fusing observations, models and manipulative experiments to determine forest responses to environmental change, NSF EPSCoR program, *Dept. of Land Resources and Environmental Sciences, Montana State University, March 21st 2011 (seminar)*
- Moore**, DJP. Developing ecological principles and theory for continental-scale ecology using the NEON platform, *Biogeochemistry Seminar Series, Cornell University March 4th 2011 (seminar)*
- 2004 **Moore** DJP The Response of Forests to Atmospheric Change. *National University of Ireland, Maynooth. (invited seminar)*
- Moore** DJP The Changing Role of Forests in the Global Carbon Cycle: Responding to Elevated Carbon Dioxide in the Atmosphere. *University College Dublin.(invited seminar)*

Symposia proceedings (Invited)

- 2012 **Moore** DJP Identifying Phenological Data Products. *USA National Phenology Network RCN Workshop (May 2012)*
- Moore** DJP How do you incorporate modeling in analysis across scales? (break-out session lead) *Spatial and Temporal Scaling in Continental-Scale Ecology Workshop 11-12 June 2012, Boulder, CO USA*

- 2011 **Moore**, DJP Phenology, Ecology, and Ecosystem Function: Combining Multiple Observations using Simple Models. *Phenology Research and Observations of Southwest Ecosystems (PROSE) Symposium 10/28/2011 (keynote address)*

Conferences Proceedings (Invited)

- 2011 **Moore**, DJP. Changes in Carbon Balance after Insect Disturbance in Western US Forests (B) OOS102. *American Geophysical Union Fall Meeting, San Francisco, CA, 2011 (Oral)*

Moore, DJP, Dietze, MC, Ricciuto, DM, Richardson AD, Braswell, R. Using historical data to constrain long term carbon dynamics in land surface models: processes and data. Biogeosciences (B) B21D-0276, *American Geophysical Union Fall Meeting, San Francisco, CA, 2011 (Poster)*

- 2009 **Moore** DJP, Richardson, A.D., Ricciuto & Hollinger D Carbon cycling at a temperate evergreen forest: a comparison of three ecosystem-model data assimilation systems at Howland, ME. *American Geophysical Union Fall Meeting, San Francisco, CA, 2009 Dec 14th-18th (presentation)*

Conference Proceedings (contributed)

- 2013 Dynes EL^{MSc}, **Moore DJP**, Hartfield K, Quaife T, Trahan NA Combining field observations and Remote Sensing to Estimate the Impact of Bark Beetle Disturbance on the Regional Carbon Balance of North West Colorado. *North American Carbon Program All Investigators Meeting Albuquerque, NM, Feb 4-7, 2013*

Alexander MR^{PhD}, Trouet V, Babst F, **Moore DJP** Hydrologically-driven spatial heterogeneity of tree productivity in the Southwest. *North American Carbon Program All Investigators Meeting Albuquerque, NM, Feb 4-7, 2013*

- 2012 Shiach IM^{MSc}, Khairy^{UG}, MV, McCorkel, J, **Moore** DJP Development of a calibrated multi-spectral imaging system for high-resolution monitoring of landscape phenology *Sixth Annual PROSE Meeting, Tucson AZ, October 12, 2012*

- 2011 Monson, R K, **Moore**, DJP, Trahan NA^{PhD}, Scott-Denton L, Burns SP, Hu J, Bowling DR Process coupling and control over the response of net ecosystem CO₂ exchange to climate variability and insect disturbance in subalpine forests of the Western US. B13J-01, *American Geophysical Union Fall Meeting, San Francisco, CA, 2011 Fall Meeting (poster)*

Johnson, B, M Kuester and DJP **Moore**, The NEON Airborne Observation Platform: A Tool for Scaling from Organismal to Continental Scales. *ESA 96th Annual Meeting, August 7 - 12, 2011, OOS 17-3 (oral)*

McCorkel, J MA Kuester, BR Johnson, K Krause, TU Kampe, DJP **Moore** Detecting trends in regional ecosystem functioning: the importance of field data for calibrating and validating NEON airborne remote sensing instruments and science data products American Geophysical Union, 2011 Fall Meeting, San Francisco (poster)

Schimel, D, Fox AM, **Moore**, DJP, Sacks, WJ, Berukoff, S Observatory enabled modeling of the Global Carbon Cycle, BIOGEOSCIENCES / Carbon cycling, B11D-0514 *American Geophysical Union Fall Meeting, San Francisco, CA, 2011 Fall Meeting, San Francisco (poster)*

Fox, AM, Hoar, T, **Moore**, DJ, Berukoff, S, Schimel, D. A model-data fusion approach to integrate national ecological observatory network observations into an Earth System Model, [0414] BIOGEOSCIENCES / Biogeochemical cycles, processes, and modeling. B11D-0520 Poster. *American Geophysical Union Fall Meeting, San Francisco, CA, Fall Meeting 2011 (poster)*

Moore, DJP, Trahan NA^{PhD}, Wilks P^{MSc}, Stephens B, Quaife T, Elder K, Desai A, Negrón J, Monson RK Changes in carbon balance after insect disturbance in Western U.S. forests *NASA Carbon Cycle and Ecosystems Joint Science Workshop Oct 3-7 2011 (poster)*

Trahan, NA^{PhD}, DJP **Moore**, DR Bowling and RK Monson, Mountain Pine beetle disturbance effects on Colorado subalpine forest carbon cycling. ESA 96th Annual Meeting COS 38-3, August 7 - 12, 2011, Austin Convention Center (Oral)

Moore, DJ, Development of a Data Assimilation System to Study Ecosystem Exchange at the National Scale Using Data from the National Ecological Observatory Network. ESA 96th Annual Meeting, August 7 - 12, 2011, Austin Convention Center OOS 17-7 (Oral)

Fox, AM, WJ Sacks, DJP **Moore**, DM Ricciuto, S Berukoff and DS Schimel, Assimilation of flux measurements into the NEON-NCAR land surface model. ESA 96th Annual Meeting, August 7 - 12, 2011, Austin Convention Center.

Sacks, WJ, Fox AM, **Moore**, DJP, Berukoff, S, Schimel, D, Hoar, T Development of a data assimilation system to improve the parameterization of CLM using data from the National Ecological Observatory Network, CESM Annual Workshop 2011, Breckenridge, CO

Trahan, NA^{PhD}, **Moore**, DJP, Brayden, B H, Dynes, E^{MSc}, Monson, R K Mountain pine beetle disturbance effects on soil respiration and nutrient pools. Biogeosciences (B)

B33B-0446 *American Geophysical Union Fall Meeting, San Francisco, CA, 2011 Fall Meeting (poster)*

Moore, DJP, W.J.Sacks, A. Fox, S. Berukoff, Ecosystem exchange of carbon for the National Ecological Observatory Network (NEON) Realm. *AmeriFlux Science Meeting & 3rd NACP All-Investigators Meeting, New Orleans, LA, Jan 31st – Feb 4th 2011 (poster)*

2010 **Moore**, DJP, P.Wilkes^{MSc}, T.L.Quaife, N.A.Trahan^{PhD}, R.K.Monson, B.B.Stephens, Changes in Carbon Uptake and Release Cause By Insect Outbreaks in the Colorado Rocky Mountains from 2000 through 2010 (poster) *American Geophysical Union Fall Meeting, San Francisco, CA, 2010 Dec 13th–17th*

Desai, AR, W.K.Ahue, B.Brooks, D.J. **Moore**, T.Quaife, R.K.Monson, S.DeWekker, T.L.Campos, B.B.Stephens, P.Wilkes, D.Schimel Climatic Controls on Carbon Exchange in the US Mountain West at Multiple Scales (poster) *American Geophysical Union Fall Meeting, San Francisco, CA, 2010 Dec 13th–17th*

Moore, DJP, M. Keller, W.J.Sacks, S. Berukoff Development of a Data Assimilation System to Study Ecosystem Exchange of Carbon at the National Scale Using Data from the National Ecological Observatory Network (poster) *American Geophysical Union Fall Meeting, San Francisco, CA, 2010 Dec 13th–17th*

Dynes EL^{UG}, **Moore** DJP, Trahan N, Monson RK, Raveney CJ, Gibson C^{UG}. Impact of bark beetle infestation on the spatial distribution of soil respiration. *British Ecological Society Sept 7th – 9th 2010 (poster)*

Moore DJP, Forest Responses to Environmental Change: Measurements and models on different scales. *Swansea University School of the Environment & Society Jan 28th 2010 (invited seminar)*

2009 **Moore** DJP, Richardson, A.D., Ricciuto & Hollinger D Carbon cycling at a temperate evergreen forest: a comparison of three ecosystem-model data assimilation systems at Howland, ME. *American Geophysical Union Fall Meeting, San Francisco, CA, 2009 Dec 14th–18th (presentation)*

Dynes, EL^{UG}, **Moore**, DJP Welker, JM, Sullivan P, Ebbs, E, Pattison R, Photosynthesis, plant growth and nitrogen nutrition in Alaskan tussock tundra: Response to experimental warming. *American Geophysical Union Fall Meeting, San Francisco, CA, 2009 Dec 14th–18th (poster)*

- Moore** DJP Responses of forests to atmospheric and climatic change. *Environmental Systems Science Centre, University of Reading Oct 15th 2009 (invited seminar)*
- Moore** DJP, Richardson, A.D., Ricciuto & Hollinger D Carbon cycling at in a temperate evergreen forest: a multi-model data-model fusion analysis at Howland, ME. *94th Annual Meeting of the Ecological Society of America, Albuquerque, NM, 2009 Aug 2nd-7th (presentation)*
- 2008 Desai AR, Stephens BB, Schimel DS, **Moore** DJP, deWekker SFJ, Campos SFJ, Monson RK, Ahue WK, Behnke RJ, Aulenbach SM, Quaife, T. Constraining regional carbon fluxes in complex terrain: The Airborne Carbon in the Mountains Experiment 2007 (ACME07) *American Geophysical Union Fall Meeting 15-19 Dec 2008 (poster)*
- Moore** DJP, Hu J^{PhD}, Sacks WJ, Schimel DS, Monson RK Estimating transpiration and the sensitivity of carbon uptake to water availability in a subalpine forest using a simple ecosystem process model informed by measured net carbon dioxide and water fluxes. *European Geosciences Union General Assembly 2008 Vienna, Austria, 13 - 18 April 2008*
- 2007 **Moore** DJP, Schimel D, Monson RK, Aulenbach S. Carbon Balance in a Mountain Forest: Model Data Fusion of Net Ecosystem Exchange over 7 years. *North American Carbon Program, 2007, Jan 22-24th Colorado Springs, CO (poster)*
- 2006 **Moore** DJP, Schimel D, Monson RK, deWekker S, Aulenbach S, Stephens B. 2006 Carbon Balance in the Rocky Mountains: Integrating multi-scale information to develop process based understanding of regional carbon fluxes. *Global Vegetation Workshop 2006, Aug 8-10th Missoula, MT (poster)*
- Moore** DJP (2006) Interannual variation in the response of a temperate forest to Free Air Carbon dioxide Enrichment, *University of Colorado, Boulder (oral presentation)*
- Moore** DJP, Gonzalez-Meler M, Taneva L, Phippen JS, Kim HS, DeLucia EH. 2006 The Contribution of Soil CO₂ to Apparent Stem Respiration in *Pinus taeda* L. trees. *91st Annual Meeting of the Ecological Society of America (poster)*
- 2005 Wilson FR, **Moore** DJP, Curtis TGF (2005) The vegetation, geomorphology and conservation value of Irish shingle and boulder beaches. *European Vegetation in the 21st Century, National University of Ireland, Galway (poster)*

2004 Aref S, **Moore** DJP, DeLucia EH (2004) Onset and cessation of growth of Loblolly Pines in the Duke Forest FACE experiment. *16th KSU Conference on Applied Statistics in Agriculture*

Moore DJP, Pippen J, DeLucia EH, (2004) Differential growth of understory hardwood species in a Loblolly pine plantation exposed to elevated CO₂. *89th Annual Meeting of the Ecological Society of America (oral presentation)*

Moore DJP, Pippen JS, DeLucia EH, (2004) Inter-annual variation in the response of tree growth and productivity to exposure to elevated [CO₂]. *The STEPS Institute for Innovation in Environmental Research workshop on Climate Change Science and Society (oral presentation)*

2003 **Moore** DJP, Pippen JS, DeLucia EH, (2003) Elevated CO₂ stimulates tree growth more in hot years than in cool years. *April 27-30, 2003, Lake Tahoe, CA, USA: Interactions between Increasing CO₂ and Temperature in Terrestrial Ecosystems (poster)*

Moore DJP, Aref S, Finzi AC, Hamilton J, Pippen JS, Ho RM, DeLucia EH, (2003) Inter-annual variation in the response of tree growth and productivity to exposure to elevated [CO₂]. *88th Annual Meeting of the Ecological Society of America (presentation)*

Leakey A., Ainsworth EA, Rogers A, Davey PA, **Moore** DJP, DeLucia EH, Karnosky D, Ort D, Long SP (2003) How does elevated [CO₂] affect plant performance? Photosynthetic, respiratory and growth responses from ecosystem fumigation experiments. *DOE Terrestrial Carbon Program Review Meeting, Boulder, CO*

2002 **Moore** DJP, Mohan J, DeLucia EH (2002) No evidence for down-regulation of photosynthesis in 11 tree species in a forest understory exposed to Free Air Carbon-dioxide Enrichment (FACE). *87th Annual Meeting of the Ecological Society of America and the 14th Annual International Conference of the Society for Ecological Restoration (presentation)*