

JENNIFER CAROLINE JENKINS

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PROFESSIONAL PREPARATION

University of New Hampshire, Durham, NH, 1998.

Doctor of Philosophy in Natural Resources (Forest Ecosystem Ecology).

Thesis advisor: Dr. John D. Aber.

Yale University School of Forestry and Environmental Studies, New Haven, CT, 1995.

Master of Forest Science.

Dartmouth College, Hanover, NH, 1991.

Bachelor of Arts in Biology, with Certificates in Environmental Studies and Education.

APPOINTMENTS

Science Advisor, Vermont Climate Collaborative, 2008-present.

Program Director, Vermont Monitoring Cooperative, 2007-2008.

Co-Director, UVM Carbon Dynamics Lab, 2007-present.

President, Carbon Dynamics LLC, 2007-present.

Research Associate Professor, Gund Institute for Ecological Economics and Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT. 2008-present.

Research Assistant Professor, Gund Institute for Ecological Economics and Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT. 2004-2008.

Visiting Assistant Professor, Gund Institute for Ecological Economics and Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT. 2002-2004.

Research Forester, USDA Forest Service Northern Global Change and Forest Inventory and Analysis (FIA) Programs, 1998-2002. Radnor, PA and South Burlington, VT.

Graduate Research Assistant, University of New Hampshire, Complex Systems Research Center, 1995-1997. Durham, NH.

Research Fellow, Yale University, School of Forestry and Environmental Studies, Summer 1994. New Haven, CT.

Teaching Assistant, Yale University, School of Forestry and Environmental Studies, August 1994. New Haven, CT.

Teaching Fellow, Yale University, Department of Biology, Fall 1993–Fall 1994. New Haven, CT.

Teacher, Holderness School, 1991-1993. Plymouth, NH.

PUBLICATIONS

In preparation

- 1) **Jenkins, JC** and NJ Hagens. 2008. Constraints and opportunities for biomass energy as a fossil fuel replacement for home heating in the northeastern US.
- 2) Quigley, E, **JC Jenkins**, S Hamburg, and T Fahey. 2008. A land-use based carbon budget for Chittenden County, Vermont.

- 3) **Jenkins, JC**, RA Birdsey, PS Murdoch, DC Chojnacky. 2008. From plot to landscape: Field measurements of carbon stocks and fluxes at inventory plots in the Delaware River Basin.
- 4) **Jenkins, JC**, PM Groffman, J Butnor. 2008. Carbon balance in a chronosequence of residential turfgrass.

In review

- 5) Chojnacky, DC, **JC Jenkins**, and AK Holland. 2008. Improving North American forest biomass estimates from literature synthesis and meta-analysis of existing biomass equations. *Proceedings, USDA Forest Service Forest Inventory and Analysis Symposium, Park City, UT. October 2008*. In review.
- 6) Mead, JV, FN Scatena, Y Pan, R Birdsey, and **JC Jenkins**. 2008. Riparian forests, litter based carbon inputs, and channel erosion across the Delaware River Basin. *Journal of Landscape Ecology*. In review.

Peer-reviewed papers

- 7) Zhou, W, A Troy, JM Grove, and **JC Jenkins**. 2008. Can money buy green? Demographic and socioeconomic predictors of lawn care expenditures and lawn greenness in urban residential areas. *Society and Natural Resources*. In press.
- 8) Hicke, JA, **JC Jenkins**. 2008. Mapping lodgepole pine stand structure susceptibility to mountain pine beetle attack across the western United States. *Forest Ecology and Management* 255(5-6): 1536-1547.
- 4) Pickett, STA, ML Cadenasso, JM Grove, PM Groffman, LE Band, CG Boone, GS Brush, WR Burch, Jr., CSB Grimmond, J Hom, **JC Jenkins**, NL Law, CH Nilon, RV Pouyat, K Szlavecz, PS Warren, MA Wilson. 2008. Beyond urban legends: New, unexpected, or complex results from the Baltimore Ecosystem Study. *Bioscience*. 58(2): 1-12.
- 5) Hicke, JA, **JC Jenkins**, DS Ojima, MJ Ducey. 2007. Spatial patterns of forest characteristics in the Western United States derived from inventories. *Ecological Applications* 17(8): 2387-2402.
- 6) Birdsey, RA, **JC Jenkins**, M Johnston, E Huber-Sannwald. 2007. North American Forests. Chapter 11 *in*: North American Carbon Budget and Implications for the Global Carbon Cycle. Synthesis and Assessment Report 2.2, (SAP 2.2), United States Climate Change Science Program.
- 7) Pacala, SW, RA Birdsey, S Bridgham, RT Conant, K Davis, B Hales, RA Houghton, **JC Jenkins**, M Johnston, G Marland, K Paustian, SC Wofsy, J Caspersen, R Socolow, and RSJ Tol. 2007. The North American carbon budget: Past and present. Chapter 3 *in*: North American Carbon Budget and Implications for the Global Carbon Cycle. Synthesis and Assessment Report 2.2, (SAP 2.2), United States Climate Change Science Program.
- 8) Lovett, GM, DA Burns, CT Driscoll, **JC Jenkins**, MJ Mitchell, L Rustad, J Shanley. 2007. Who Needs Environmental Monitoring? *Frontiers in Ecology and Environment* 5(5): 253-260.
- 9) **Jenkins, JC**, HA Ginzo, S Ogle, L Verchot. 2006. Settlements. Volume 4, Chapter 8 *in*: IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Edited by the

- National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. Pages 8.1 - 8.29.¹
- 10) **Jenkins, JC**, HA Ginzo, S Ogle. 2006. Other Land. Volume 4, Chapter 9 *in*: IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Edited by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan. Pages 9.1 – 9.9.
 - 11) Canham, CD, MJ Papaik, M Uriarte, WH McWilliams, **JC Jenkins**, MJ Twery. 2006. Neighborhood Analyses of Canopy Tree Competition along Environmental Gradients in New England Forests. *Ecological Applications* 16(2): 540-554.
 - 12) Pontius, JA, RA Hallett, **JC Jenkins**. 2006. Foliar chemistry linked to infestation and susceptibility to hemlock woolly adelgid (Homoptera: Adelgidae). *Environmental Entomology* 35(1): 112-120.
 - 13) McRoberts, RE, WH McWilliams, GS Reams, TL Schmidt, **JC Jenkins**, KP O'Neill, PD Miles, GJ Brand. 2004. Assessing sustainability using data from the Forest Inventory and Analysis Program of the United States Forest Service. *Journal of Sustainable Forestry* 18(1): 23-46.
 - 14) Pan, Y, J Hom, **JC Jenkins**, RA Birdsey. 2004. Importance of foliar nitrogen concentration to predict forest productivity spatially across the Mid-Atlantic region. *Forest Science* 50(3): 270-289.
 - 15) **Jenkins, JC**, DC Chojnacky, LS Heath, RA Birdsey. 2003. National-scale biomass estimators for United States tree species. *Forest Science* 49(1): 12-35.
 - 16) Goodale, C.L., Apps, M.J., Birdsey, R.A., Field, C.B., Heath, L.S., Houghton, R.A., **Jenkins, J.C.**, Kohlmaier, G.H., Kurz, W., Liu, S., Nabuurs, G-J., Nillson, S., Shvidenko, A. 2002. Forest carbon sinks in the northern hemisphere. *Ecological Applications* 12: 891-899.
 - 17) Hicke, J.A., Asner, G.P., Randerson, J., Los, S., Birdsey, R.A., **Jenkins, J.C.**, Tucker, C., and Field, C. 2002. Satellite-derived increases in net primary productivity across North America, 1982-1998. *Geophysical Research Letters*, 29 (10): Art. No. 1427.
 - 18) Hicke, J.A., Asner, G.P., Randerson, J., Los, S., Birdsey, R.A., **Jenkins, J.C.**, Tucker, C., and Field, C. 2002. Trends in North American net primary productivity derived from satellite observations, 1982-1998. *Global Biogeochemical Cycles*, 16 (2): Art. No. 1019.
 - 19) Nemani, R.R., White, M.A., Nishida, K., Reddy, S., **Jenkins, J.C.** and Running, S.W. 2002. Recent trends in hydrologic balance have enhanced the terrestrial carbon sink in the United States. *Geophysical Research Letters*, 29 (10): Art. No. 1468.
 - 20) **Jenkins, J.C.**, Birdsey, R.A., and Pan, Y. 2001. Biomass and NPP estimation for the mid-Atlantic (USA) region using plot-level forest inventory data. *Ecological Applications* 11: 1174-1193.
 - 21) Caspersen, J.P., Pacala, S.W., **Jenkins, J.C.**, Hurtt, G.C., Moorcroft, P.R., and Birdsey, R.A. 2000. Carbon accumulation in eastern U.S. forests is caused overwhelmingly by changes in land use rather than CO₂ or N fertilization or climate change. *Science* 290: 1148-1151.
 - 22) **Jenkins, J.C.**, Aber, J.D., and Canham, C.D. 1999. Hemlock woolly adelgid impacts on community structure and N cycling rates in eastern hemlock forests. *Canadian Journal of Forest Research* 29: 630-645.

¹ This publication, and the next one, are listed in this “peer-reviewed papers” category because they did undergo several rounds of IPCC-mandated peer and governmental review prior to publication, though this review was not the standard journal article peer review process.

- 23) **Jenkins, J.C.**, Kicklighter, D.W., Ollinger, S.V., Aber, J.D., and Melillo, J.M. 1999. Sources of variability at a regional scale: A comparison using PnET-II and TEM 4.0 in northeastern U.S. forests. *Ecosystems* 2: 555-570.

Book chapters, reports, and conference proceedings

- 24) Murdoch, P.S., **J.C. Jenkins**, and R.A. Birdsey, eds. 2008. The Delaware River Basin Collaborative Environmental Monitoring and Research Initiative: Foundation Document. USDA Forest Service General Technical Report GTR-NRS-25. 99 pp.
- 25) **Jenkins, Jennifer C.**; Chojnacky, David C.; Heath, Linda S.; Birdsey, Richard A. 2004. Comprehensive database of diameter-based biomass regressions for North American tree species. Gen. Tech. Rep. NE-319. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 45 p. [1 CD-ROM].
- 26) **Jenkins, JC** and R Riemann. 2003. What does nonforest land contribute to the global C balance? Pp. 173-179 in: McRoberts, R., Reams, G.A., Van Deusen, P.A., Moser, J.W., eds. Proceedings, Third Annual FIA Science Symposium, Traverse City, MI, Oct. 14-16, 2001. St. Paul, MN: USDA Forest Service General Technical Report NC-230. 208 p.
- 27) Smith, J, Heath, LS, and **Jenkins, JC**. 2003. Forest volume-to-biomass models and estimates of mass for live and standing dead trees of US forests. Newtown Square, PA: USDA Forest Service General Technical Report NE-298. 57 p.
- 28) **Jenkins, J.C.** and Birdsey, R.A. 2000. Validation databases for simulation models: Aboveground biomass and net primary productivity (NPP) estimation using Eastwide FIA data. Pp. 515-524 in: Hansen, M.H. and Burk, T., eds. Integrated Tools for Natural Resource Inventories in the 21st Century, August 16-20, 1998, Boise, ID. St. Paul, MN: USDA Forest Service North Central Research Station General Technical Report NC-212.
- 29) **Jenkins, J.C.**, Canham, C.D. and Barten, P.K. 2000. Predicting long-term forest development following hemlock mortality. Pp. 62-75 in: Shields, K.S. and Suoto, D.M, eds. Proceedings: Sustainable Management of Hemlock Ecosystems in Eastern North America, June 22-24, 1999, Durham, NH. Newtown Square, PA: USDA Forest Service Northeastern Research Station. General Technical Report NE-267.
- 30) **Jenkins, J.C.**, Kicklighter, D.W. and Aber, J.D. 2000. Predicting the regional impacts of increased CO₂ and climate change on forest productivity. Pp. 383-423 in: Birdsey, R.A., Mickler, R.H., and Hom, J., eds. *Responses of Northern U.S. Forests to Environmental Change*. New York: Springer-Verlag.
- 31) Yorks, T.E., **Jenkins, J.C.**, Leopold, D.J., Raynal, D.J., and Orwig, D.A. 2000. Influences of eastern hemlock mortality on nutrient cycling. Pp. 126-133 in: Shields, K.S. and Suoto, D.M, eds. Proceedings: Sustainable Management of Hemlock Ecosystems in Eastern North America, June 22-24, 1999, Durham, NH. Newtown Square, PA: USDA Forest Service Northeastern Research Station. General Technical Report NE-267.

RESEARCH GRANTS

Current grants

- 1) Lifecycle analysis of on-farm biofuel systems using canola and sunflower crops under conventional and organic regimes. Funded by Vermont Sustainable Jobs Fund, via High Meadows Foundation. 2008-2010.

- 2) Vermont Climate Collaborative: Science Advisor. Funded by University of Vermont, Provost and Senior Vice President. 2008-2009.
- 3) Literature synthesis and meta-analysis of tree and shrub biomass equations in North America. Funded by USDA Forest Service Joint Fire Sciences Program, in cooperation with USDA Forest Service (D. Chonacky). 2008-2009.
- 4) Carbon footprints of alternative transportation and land use scenarios. Part D of Signature Project 1, Modeling Alternative Transportation Patterns. Funded by UVM University Transportation Center (original funding from US DOT). Lead PIs for full Signature Project, A. Troy and A. Sadek. 2007-2010.
- 5) Quantifying carbon dynamics and sequestration under alternate forest management scenarios in the northern forest: evaluation of sequestration options and tradeoffs. Funded by Northeastern States Research Cooperative, USDA Forest Service. Lead PI W. Keeton. 2007-2009.
- 6) Land use change, carbon offsets, and carbon sequestration: A case study in Chittenden County, VT. Funded by Hubbard Brook Research Foundation, in conjunction with cooperators at Brown University (S. Hamburg) and Cornell University (T. Fahey). 2006-2008.
- 7) Short- and long-term controls on carbon cycling in the suburban forest. Funded by USDA MacIntire-Stennis Program. 2006-2009.
- 8) The Northeastern carbon sink: Enhanced growth, regrowth, or both? Lead PI Houghton (Co-I's Jenkins, Goodale, and Ducey). Funded by National Science Foundation Ecosystem Studies Program (award DEB-0613884). 2006-2009.
- 9) Carbon stocks and fluxes in urban and suburban residential landscapes. Lead PI Jenkins (Co-I's Cadenasso, Groffman, Pickett, Grove, and Cox). Funded by National Science Foundation Ecosystem Studies Program (award DEB-0444919). 2005-2009.

Completed grants

- 10) Reconciling Long-term Estimates of Forest Productivity and Wood Accumulation across the Northeastern U.S. from Inventories, Eddy Flux Towers and Remote Sensing. Subcontract to Cornell University (lead PI Goodale). Funded by National Institute for Global Environmental Change, through the Department of Energy. 2005-2006.
- 11) Participation as Lead Author in Preparation of the First State of the Carbon Cycle Report (SOCCR), Synthesis and Assessment Product 2.2 for the US Climate Change Science Program (CCSP). Lead PI Jenkins. Funded by the US Carbon Cycle Interagency Working Group (CCIWG). 2005-2006.
- 12) Participation as Lead Author in 2006 Revision of IPCC Greenhouse Gas Inventory Guidelines. USDA Forest Service Northern Global Change Program. Lead PI Jenkins. 2004-2006.
- 13) Factors influencing productivity in the Northern Forest: A forest inventory approach. Northeastern States Research Cooperative, administered by USDA Forest Service. PI's Jenkins, Ducey, and Costanza. 2003-2006.
- 14) Collaborative Environmental Monitoring and Research Initiative (CEMRI) in the Delaware River Basin: Database Development, Data Analysis, and Forest Carbon Measurement and Monitoring. USDA Forest Service Northern Global Change Program. Lead PI's Jenkins and Birdsey. 1999-2006.

INVITED PRESENTATIONS²

- Jenkins, JC.** Carbon cycling in residential turfgrass systems. Invited Symposium speaker, Ecological Society of America Annual Meeting. August 2009.
- Jenkins, JC** and NJ Hagens. Opportunities and constraints for using wood as a home heating fuel in the Northeast. Invited presentation, Northeast Ecosystem Research Cooperative (NERC) Bi-annual meeting. November 2008.
- Jenkins, JC.** Sources and sinks of carbon at multiple scales. Invited presentation, Vermont Monitoring Cooperative Annual Meeting. October 2008.
- Jenkins, JC.** Carbon101: Science and Solutions. Invited seminar speaker, RSENR Spring Seminar Series. January 2008.
- Jenkins, JC.** Building regional estimates of carbon biogeochemistry using bottom-up inventory data. Invited lecturer and tutorial leader, National Center for Atmospheric Research (NCAR) Graduate Colloquium on Regional Biogeochemistry: Needs and Methodologies. June 2007. Boulder, CO.
- Jenkins, JC,** PM Groffman, and J Butnor. Carbon biogeochemistry in suburban turfgrass. Invited seminar presentation, The Ecosystems Center, Woods Hole, MA. April 10, 2007
- Jenkins, JC,** JA Hicke, MJ Ducey, and CL Goodale. From plot to landscape: Scaling forest biomass and production to the Northeast region. Invited oral presentation, Northeastern Ecosystem Research Cooperative Bi-annual meeting. October 26, 2006. Durham, NH.
- Jenkins, JC,** PS Murdoch, RA Birdsey and DC Chojnacky. A multi-scale analysis of carbon dynamics of soil, water, and vegetation. Invited oral presentation, George Wright Society Conference, March 14-18, 2005. Philadelphia, PA.
- Jenkins, JC.** Partitioning human-induced changes from other effects. Invited presentation, National Academy of Sciences Workshop on Direct and Indirect Human Contributions to Greenhouse Gas Fluxes, Washington, DC. September 23, 2003. *Workshop report published:* Coppock, Rob and Stephanie Johnson. 2004. Direct and indirect human contributions to terrestrial carbon fluxes: A workshop summary. Washington, DC: National Academies Press. 80 pp.
- Jenkins, JC.** Evaluating forest productivity using FIA data. Invited presentation, USDA Forest Service Workshop on nutrient depletion and forest productivity for National Forest System managers. Hubbard Brook Experimental Forest, NH. May 2003.
- Jenkins, JC.** Potential effects of climate change on productivity and C sequestration in Vermont forests. Invited presentation, Vermont State Department of Natural Resources Forest Health Annual Meeting. Hartford, VT. April 2003.
- Jenkins, JC.** Trends in forest productivity and carbon sequestration: From local to global. Invited seminar for faculty, Dartmouth College Department of Environmental Studies, Hanover, NH. February 2003 *and* Invited seminar, University of Vermont Conservation Biology seminar series, Burlington, VT. March 2003.
- Jenkins, JC.** Using forest inventories to understand carbon fluxes. Invited seminar, C-DAS Summer Institute, National Center for Atmospheric Research (NCAR). May 2002.
- Jenkins, JC.,** Birdsey, R.A., Murdoch, P.S., Stolte, K. 2002. Collaborative Environmental Monitoring and Research Initiative (CEMRI): A pilot project in the Delaware River Basin. Invited seminar, SUNY College of Environmental Science and Forestry, Syracuse, NY. March 2002.

² Presentations made by Jenkins, such that Jenkins was invited to contribute the presentation by the persons organizing the meeting, workshop, or seminar.

Jenkins, JC. Where in the World is Carbon Sandiego? Forest Carbon from Real Data. Invited seminar, Institute of Ecosystem Studies, Millbrook, NY. November 19, 1999.

Jenkins, JC. and Birdsey, R.A. Validation databases for process models: Aboveground biomass and net primary productivity (ANPP) estimation for the mid-Atlantic region using forest inventory data. Invited seminar, Appalachian Environmental Laboratory, Frostburg State University, Frostburg, MD. October 29, 1998.

CONTRIBUTED PRESENTATIONS³

Jenkins, JC, PM Groffman, J Butnor, AK Holland, ML Cadenasso, JM Grove, M Washington, STA Pickett, RV Pouyat. Residential Carbon: C and N dynamics in a chronosequence of suburban lawns. Oral presentation, Baltimore Ecosystem Study Annual Meeting, October 2008, Baltimore, MD.

Holland, AK, **JC Jenkins,** PM Groffman, ML Cadenasso, JM Grove, M Washington, STA Pickett, RV Pouyat. Carbon stocks and fluxes in residential landscapes of Baltimore, Maryland. Oral presentation, Baltimore Ecosystem Study Annual Meeting, October 2008.

Lilly, PJ and **JC Jenkins.** Variation in C and N dynamics with turfgrass management in Baltimore, MD. Oral presentation, Baltimore Ecosystem Study Annual Meeting, October 2008, Baltimore, MD.

Quigley, EE and **JC Jenkins.** Calculating sequestration for county-level carbon budgets: A Case study in Chittenden County, Vermont. Poster presentation, Vermont Society of American Foresters Annual Meeting, February 2008.

Lilly, PJ and **JC Jenkins.** Why I watch the grass grow: Attaching ecological significance to lawn management in residential areas. Oral presentation, Baltimore Ecosystem Study Annual Meeting, October 2007.

Jenkins, JC, PM Groffman, ML Cadenasso, M Cox, JM Grove, STA Pickett, RV Pouyat. Residential carbon: Stocks and fluxes in residential ecosystems. Oral presentation, Baltimore Ecosystem Study (BES) Annual Meeting, October 2006, Baltimore, MD.

Jenkins, JC, PM Groffman, ML Cadenasso, M Cox, JM Grove, STA Pickett, RV Pouyat. Residential carbon: Stocks and fluxes in residential ecosystems. Poster presentation, Long-term Ecological Research Program (LTER) All Scientists Meeting, Estes Park, CO. September 2006.

Jenkins, JC and PM Groffman. 2005. A pilot study of carbon and nitrogen dynamics in a chronosequence of suburban lawns. Oral presentation, American Geophysical Union Annual Meeting, December 6-10, San Francisco, CA. Published abstract, *Suppl. Eos, Trans. AGU.*

Jenkins, JC, PM Groffman, ML Cadenasso, JM Grove, M Cox, STA Pickett, RV Pouyat, and RD Boylan. 2005. A pilot study of carbon and nitrogen dynamics in a chronosequence of suburban lawns. Oral presentation, Baltimore Ecosystem Study Annual Meeting, October 20 and 21, 2005, Baltimore, MD.

Ducey, MJ, JA Hicke, and **JC Jenkins.** 2005. Imputing diameter growth rates using geographically-weighted regression. Oral presentation, 7th Annual FIA Symposium, October 3-6, Portland, ME.

³ Presentations (mostly at professional meetings) made by Jenkins or by a collaborator, such that Jenkins is one of the authors. In most cases, the presentation was initiated by the lead author.

- Hicke, JA, MJ Ducey, and **JC Jenkins**. 2005. Net primary productivity (NPP) estimated from forest inventories: variability among environmental and forest conditions. Oral presentation, 7th Annual FIA Symposium, October 3-6, Portland, ME.
- Jenkins, JC**, JA Hicke, and MJ Ducey. 2005. Methods for computing forest net primary productivity (NPP) at the plot level from forest inventory data. Oral presentation, 7th Annual FIA Symposium, October 3-6, Portland, ME.
- Murdoch, P.S., **J.C. Jenkins**, and R.A. Birdsey. 2005. Linked terrestrial and aquatic carbon budgets in the Neversink River, NY through leveraging of National monitoring programs. Poster presentation, Gordon Conference on Catchment Science: Interactions of Biology, Hydrology, and Geochemistry, July 17-22 2005, Waterville, ME.
- Jenkins, JC**, PM Groffman, ML Cadenasso, STA Pickett, M Cox, JM Grove, and RV Pouyat. 2005. Carbon stocks and fluxes in urban and suburban residential landscapes. Poster presentation, Third USDA Symposium on Greenhouse Gases and Carbon Sequestration in Agriculture and Forestry, March 21-24, 2005. Baltimore, MD.
- Jenkins, JC**, PS Murdoch, RA Birdsey and DC Chojnacky. 2005. Linking extensive monitoring systems for complete C balance estimation: A pilot test in the Catskill Mountains, NY (USA). Poster presentation, Third USDA Symposium on Greenhouse Gases and Carbon Sequestration in Agriculture and Forestry, March 21-24, 2005. Baltimore, MD.
- Jenkins, JC**, DC Chojnacky, LS Heath, RA Birdsey. 2005. A comprehensive database of diameter-based biomass regressions for North American tree species. Poster presentation, Third USDA Symposium on Greenhouse Gases and Carbon Sequestration in Agriculture and Forestry, March 21-24, 2005. Baltimore, MD.
- Jenkins, JC**, PS Murdoch, and RA Birdsey. 2004. Linking extensive monitoring systems for complete C balance estimation: A pilot test in the Catskill Mountains, NY (USA). Oral presentation, Monitoring Science and Technology Symposium, September 21-24, 2004. Denver, CO.
- Jenkins, JC** and RA Birdsey. 2004. Optimizing field methods for large-scale inventory-based terrestrial C budgets: A pilot test in the Delaware River Basin (USA). Oral presentation, Third Annual Conference on Carbon Capture and Sequestration, May 3-6, 2004. Washington, DC.
- Jenkins, JC**, RA Birdsey, PS Murdoch and J Hom. 2003. Measuring and monitoring forest productivity at multiple scales in the Delaware River Basin. Poster presentation, 5th Annual FIA Science Symposium, New Orleans, LA. November 2003.
- Jenkins, JC** and RA Birdsey. 2002. Optimizing field techniques for measuring and modeling forest C cycling: A pilot test in the Delaware River Basin. Presentation at the USDA Symposium on Natural Resource Management to Offset Greenhouse Gas Emissions, Raleigh, NC. November 2002.
- Jenkins, JC** and RA Birdsey. 2002. Optimizing field techniques for measuring and modeling forest C cycling: A pilot test in the Delaware River Basin. Published abstract, *Suppl. Eos, Trans. AGU*.
- Jenkins, J.C.** and Riemann, R. 2001. What does nonforest land contribute to the global carbon cycle? Presentation at the Third Annual FIA Science Symposium, Traverse City, MI, October 2001.
- Jenkins, J** and Riemann, R. 2001. What does nonforest land contribute to the global carbon cycle? Presentation at the Baltimore Ecosystem Study Annual Meeting, Baltimore, MD, October 2001.

- Jenkins, J.C.**, Birdsey, R.A., Murdoch, P.S., Stolte, K., Hom, J. Collaborative Environmental Monitoring and Research Initiative: A pilot project in the Delaware River Basin, USA. 86th Annual Meeting of the Ecological Society of America, Madison, WI. August 5-10, 2001. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Jenkins, J.C.**, Riemann, R., Nowak, D., Pouyat, R. 2001. What does nonforest land contribute to the global C balance? American Geophysical Union Spring Meeting, Boston, MA. May 31-June 3, 2001. Published abstract, *Suppl. Eos, Trans. AGU.*
- Jenkins, J.C.** 2001. Can FIA data inform ecological modeling? Poster, Cary Conference May 1-4, 2001.
- Chojnacky, D.C. and **Jenkins, J.C.** 2000. Allometric relationship between tree diameter and total aboveground biomass may be more species independent than previously thought. 85th Annual Meeting of the Ecological Society of America, Snowbird, UT. August 6-9, 2000. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Goodale, C.L and the NCEAS Carbon Working Group. 2000. A common framework for the forest carbon budget of Eurasia and North America. The Role of Boreal Forests and Forestry in the Global Carbon Budget, Edmonton, Alberta, Canada. May 8-12, 2000.
- Goodale, C.L and the NCEAS Carbon Working Group. 2000. A common framework for the forest carbon budget of Eurasia and North America. 85th Annual Meeting of the Ecological Society of America, Snowbird, UT. August 6-9, 2000. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Jenkins, J.C.**, Chojnacky, D.C., Heath, L.S. and Birdsey, R.A. 2000. Continental-scale biomass estimators for United States tree species. Advances in terrestrial ecosystem carbon inventory, measurements, and monitoring, Durham, NC. October 3-5, 2000.
- Jenkins, J.C.**, Birdsey, R.A., and Pan, Y. 1999. Validation databases for simulation models: Biomass and net primary productivity (NPP) estimation using forest inventory data. 84th Annual Meeting of the Ecological Society of America, Spokane, WA. August 8-12, 1999. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Pan, Y., Hom, J., **Jenkins, J.**, Grove, J.M, Aber, J.D. 1999. Predicting water yield and N leaching losses in forests and evaluating impact of increased N deposition in the Chesapeake Basin. 84th Annual Meeting of the Ecological Society of America, Spokane, WA. August 8-12, 1999. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Jenkins, J.C.**, Aber, J.D., and Canham, C.D. 1998. Hemlock woolly adelgid impacts on community structure and N cycling rates in eastern hemlock forests. 83rd Annual Meeting of the Ecological Society of America, Baltimore, MD. August 2-6, 1998. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Pan, Y., Hom, J., Grove, J.M., Holt, H.A., **Jenkins, J.C.**, and Aber, J.D. 1998. Regional estimation and validation of forest production and water yield for Chesapeake Bay Basin with the PnET-II model and field data. 83rd Annual Meeting of the Ecological Society of America, Baltimore, MD. August 2-6, 1998. Published abstract, *Suppl. Bull. Ecol. Soc. Am.*
- Jenkins, J.C.** and J.D. Aber. 1997. Effects of hemlock woolly adelgid (*Adelges tsugae* Annand) infestation on ecosystem process in eastern hemlock (*Tsuga canadensis* (L.) Carr.) forests. Published abstracts, 8th and 9th Annual Harvard Forest Ecology Symposia, February 1997 and 1998.

SYNERGISTIC ACTIVITIES

Organizing committee, 4th Annual Greening Up Your Bottom Line Conference. Vermont Small Business Development Center. Stowe, VT. October 2009.

Organizing committee, Carbon in Northern Forests: Integration of Research and Management. Organized by the Northern Institute of Applied Carbon Science, USDA Forest Service Northeastern Research Station. Traverse City, MI. June 2009.

Organizing committee, Adaptation to Climate Change in the Northern Forest Landscape. Tentative conference date May 2009. Burlington, VT. The Nature Conservancy.

Steering committee, Northern Forest Alliance 2008 Climate Change Conference: “Climate change and the future of the Northern Forest.” Dartmouth College, Hanover, NH. November 2008.

Appointed Member, Vermont Climate Change Oversight Committee. Appointed by joint action of the Vermont Governor and Legislature. October 2008.

Appointed Member, American College and University Presidents’ Climate Commitment (ACUPCC) Offset Protocol Working Group. April 2008-present.

Invited Participant, Hubbard Brook Research Foundation Roundtable on Creating Markets for Forest Carbon in the Northern Forest Region. Workshop organized by John Aber, UNH, and Will Abbott, Society for the Protection of New Hampshire Forests. March 7-8, 2008.

Invited Panelist, Frontiers in Sustainability Science: Biofuels as a Critical Test. Panel topic: “Beyond life-cycle energy analyses of biofuel production: broader carbon cycle implications.” Workshop organized by C Canham, W Schlesinger, P Groffman and M Pace, Institute of Ecosystem Studies. Funded by the National Science Foundation. November 2007.

Plenary Group Member, Vermont Governor’s Commission on Climate Change. August 2006 – October 2007.

Member, Northeastern Ecosystem Research Cooperative (NERC) Environmental Monitoring Committee. Lead Organizer, Dr. Gary Lovett, Institute of Ecosystem Studies.

Co-Investigator, Baltimore Ecosystem Study Long-term Ecological Research Study (BES-LTER). 2004-present.

Lead Author, North American Carbon Budget and Implications for the Global Carbon Cycle Report (original title: First State of the Carbon Cycle Report (SOCCR)). A Synthesis and Assessment Product of the US Climate Change Science Program (CCSP). Together with R. Birdsey, primarily responsible for coordinating Chapter 11, Temperate Forests.

Lead Author, 2006 Revision of IPCC (Intergovernmental Panel on Climate Change) Best Practices Guidelines for Greenhouse Gas Inventory Reporting. Primary lead author responsible for coordinating sections on C sequestration in Settlements (Volume 4, Chapter 8) and Other Lands (Volume 4, Chapter 9).

Delegate, National Academy of Sciences Workshop on Direct and Indirect Human Contributions to Terrestrial Greenhouse Gas Fluxes. Washington, DC. September 2003.

Technical Expert, IPCC Working Group on Methodologies to Factor Out Direct Human-Induced Changes in Carbon Stocks and Greenhouse Gas Emissions by Sources and Removal by Sinks. Geneva, Switzerland. September 2002.

Senior Participant, Carbon Data-Model Assimilation (C-DAS) Summer Institute. National Center for Atmospheric Research, Boulder CO. Lead PI’s Britt Stephens and David Schimel. May 2002.

Workshop organizer, Integrating Social Science into LTER Programs: Ecosystem Function in Coupled Systems. Lead PI’s Jenkins and Peter Groffman, Institute of Ecosystem Studies,

Millbrook, NY. Workshop funded via a NSF-sponsored Biocomplexity Incubation Grant, Baltimore, MD. April 29-May 1, 2002.

Invited Participant, Understanding Ecosystems: The Role of Quantitative Models in Observation, Synthesis, and Prediction. Cary Conference IX, Institute of Ecosystem Studies, Millbrook, NY. May 1-3, 2001.

Member, NCEAS Workshop on the Carbon Balance of Eurasia and North America, 1999-2002. Lead PI Christopher Field, Carnegie Institute of Washington.

Participant, Ecosystem Model-Data Intercomparison (EMDI) Workshops, 1999-2001. Sponsored by IGBP and Global Analysis, Interpretation, and Modeling (GAIM). Lead PI Kathy Hibbard, University of New Hampshire.

Member, NCEAS Workshop on the Development of a Consistent Worldwide Net Primary Production (NPP) Database, 1998. Sponsored by NCEAS, the Global Primary Production Data Initiative (GPPDI), and the International Geosphere-Biosphere Programme Data and Information System (IGBP-DIS). Lead PI Steve Prince, University of Maryland.

CLASSES TAUGHT

ENSC130, *Global Environmental Assessment*. Spring 2003.

NR199, *Honors Undergraduate Seminar* (topic: Ecosystem Health). Spring 2004.

ENSC101/160, *Pollutant Movement through Air, Land, and Water*. Fall 2004 – 2008.

NR285, *The History, Science and Politics of Climate Change*. Spring 2005.

HCOL196, *The History, Science, and Politics of Climate Change*. Spring 2006 and 2007.

NR385, *Vermont Climate Collaborative Practicum*. Spring 2009.

STUDENT COMMITTEES (major advisor indicated by *)

Current:

*Anna Mika, University of Vermont (PhD). Matriculated September 2008. Preliminary thesis title: "Development of an integrated land use and carbon calculator."

Juliette Juillerat, University of Vermont (MS). Matriculated September 2008.

*Eleanor Campbell, University of Vermont (MS). Matriculated September 2007. Preliminary thesis title: "Lifecycle analysis of on-farm biofuel systems using canola and sunflower crops under conventional and organic regimes."

*Laura Nagel, University of Vermont (MS). Matriculated September 2007. Preliminary thesis title: "Carbon stocks and fluxes in residential landscapes with different land-use histories in Chittenden County, Vermont."

Rachel Knapp, University of New Hampshire (MS). Matriculated September 2007.

Jared Nunery, University of Vermont (MS). Matriculated September 2007.

Christina Erickson, University of Vermont (PhD). Matriculated September 2006.

Nathan Hagens, University of Vermont (PhD). Matriculated September 2005.

*Paul Lilly, University of Vermont (PhD). Matriculated September 2005. Preliminary thesis title: "Experimental and observational analysis of the impact of management on carbon accumulation in suburban landscapes."

Graduated:

Jennifer Pontius, University of New Hampshire (PhD). Graduated August 2004. Thesis title: “Interactions between hemlock woolly adelgid infestation and soil and foliar properties.”
*Erin Quigley, University of Vermont (MS). Graduated May 2008. Thesis title: “Land use change, carbon offsets, and carbon sequestration: A case study in Chittenden County, VT.”
*Ryan Salmon, University of Vermont (MS, Field Naturalist Program). Graduated May 2008.
Rebecca Rockefeller, University of Vermont (MS). Graduated May 2008.

PROFESSIONAL SERVICE

University service:

Elected Delegate, Faculty Senate, 2008 – present
Elected Member, Graduate Standards Committee, 2005 –2008 (Chair, 2007-2008)
Member, Environmental Science Faculty, August 2004 – present
Academic advisor, Delta Delta Delta sorority, January 2005 – present

Journal reviews (multiple reviews are indicated by *):

Biogeochemistry*
Canadian Journal of Forest Research*
Climatic Change
Computers in Science and Agriculture
Ecological Applications*
Ecology
Ecosystems*
Environmental Management*
Environmental Modelling and Software
Environmental Pollution*
Forest Ecology and Management*
Forest Science*
Forestry (UK)
Geophysical Research Letters*
Global Change Biology*
Global Ecology and Biogeography
Journal of Biogeography
Journal of Environmental Quality
Journal of Geophysical Research -- Biogeosciences*
Mitigation and Adaptation Strategies for Global Change
Science*
Urban Ecosystems*

Grant award reviews and panel service (multiple reviews are indicated by *):

Panelist, National Science Foundation Division of Environmental Biology (Ecosystem Studies cluster), Doctoral Dissertation Improvement Grant Program (2006)
Panelist, EPA STAR Fellowship Program (1999)
Department of Energy, National Institute for Climatic Change Research (NICCR)*
NASA New Investigator Program
NASA-ROSES, Carbon and Climate Program

National Science Foundation, CAREER Program
National Science Foundation, Ecology and Ecosystems Program*
National Science Foundation, Long-term Research in Environmental Biology (LTREB)
University of California, Kearney Foundation of Soil Science*
USDA Forest Service, Northeastern Ecosystem Research Cooperative (preproposal review)

AWARDS AND HONORS

Nobel Peace Prize, shared with co-authors of Intergovernmental Panel on Climate Change (IPCC) and Al Gore, 2007.
USDA Forest Service Certificate of Appreciation, “for pioneering research that extends the use of Forest Inventory and Analysis data for estimating net primary productivity,” 2001.
USDA Forest Service Certificate of Appreciation, “for herculean efforts in recruiting, hiring, fieldwork, and other efforts related to the Delaware River Basin pilot study,” 2001.
USDA Forest Service Certificate of Appreciation, “for contributions to the NE/NA Civil Rights Committee,” 2001 and 2002.
Sperry/ Carpenter/ Mellon Funds for Independent Research, 1994.
Weyerhaeuser Center Research Fellowship, 1994.
Edna Bailey Sussman Fund Research Fellowship, 1994.
Academic Citations in Biology and Environmental Studies, 1987 and 1991.
Cum Laude, 1989-1991.
Dartmouth College Waterhouse Grant for Independent Research, 1990.

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association of University Women, American Geophysical Union, Ecological Society of America, Sigma Xi.