
Jeremy Fisher, Ph.D.

Scientist

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Cambridge MA. Scientist, 2007-present

Consulting on economic analysis of climate change and energy, carbon, and emissions policies. Quantitative evaluations of regional climate change impact, energy efficiency programs, long- and short-term electric industry planning, carbon reduction planning, and emissions compliance programs.

Tulane University, Ecology and Evolutionary Biology. Research Scientist, 2006-2007

Determining Hurricane Katrina's impact on Gulf Coast ecosystems using satellite and field data.

University of New Hampshire, Earth, Oceans, and Space. Research Scientist, 2006-2007

Organizing team synthesis review of causes and rates of natural rainforest loss in the Amazon basin.

Brown University, Watson Institute for International Studies. Visiting Fellow, 2007-2008.

Designing study to examine migratory bird response to climate variability in the Middle East.

Brown University, Department of Geological Sciences. Research Assistant, 2001-2006

Tracking impact of climate change on New England forests from satellites. Working with West African communities to determine impact of climate change and practice on landscape. Modeling coastal power plant effluent from satellite data.

EDUCATION

Brown University, Ph.D. in Geological Sciences, 2006

Brown University, M.S. in Geological Sciences, 2003

University of Maryland, College Park, B.S. in Geography and Geology, 2003

FELLOWSHIPS & AWARDS

2007 Visiting Fellow, Watson Institute for International Studies, Brown University

2007 Finalist, Congressional Fellowship, American Institute of Physics and Geological Society of America

2003 Fellow, National Science Foundation East Asia Summer Institute (EASI)

2003 Fellow, Henry Luce Foundation at the Watson Institute for International Studies, Brown University

PEER REVIEWED PUBLICATIONS

Fisher, J.I. G.C. Hurtt, J.Q. Chambers, Q. Thomas. 2008 Clustered disturbances lead to bias in large-scale estimates based on forest sample plots. *Ecology Letters*. 11:6, 554-563

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- J. T. Morisette, A. D. Richardson, A. K. Knapp, **J.I. Fisher**, E. Graham, J. Abatzoglou, B.E. Wilson, D. D. Breshears, G. M. Henebry, J. M. Hanes and L. Liang. 2008. Unlocking the rhythm of the seasons in the face of global change: Challenges and opportunities for phenological research in the 21st Century. Manuscript submitted to *Frontiers in Ecology*.
- Chambers, J.Q., **J.I. Fisher**, H. Zeng, E.L. Chapman, D.B. Baker, and G.C. Hurtt. 2007 Hurricane Katrina's Carbon Footprint on U.S. Gulf Coast Forests. *Science*. 318:1107
- Fisher, J.I.**, A.D. Richardson, and J.F. Mustard. 2007 Phenology model from surface meteorology does not capture satellite-based greenup estimations. *Global Change Biology* 13:707-721
- Fisher, J.I.** & J.F. Mustard. 2007 Cross-scalar satellite phenology from ground, Landsat, and MODIS data. *Remote Sensing of Environment* 109:261–273
- Fisher, J.I.**, J.F. Mustard, and M. Vadeboncoeur. 2006 High Resolution Phenologies from Landsat Data. *Remote Sensing of Environment*. 100:2:265-279
- Fisher, J.I.** & J.F. Mustard. 2004 High spatial resolution sea surface climatology from Landsat thermal infrared data. *Remote Sensing of Environment*. 90:293-307.
- Fisher, J.I.**, J. F. Mustard, and P. Sanou. 2004 Policy imprints in Sudanian forests: Trajectories of vegetation change under land management practices in West Africa. *Submitted, International J.Remote Sensing*
- Fisher, J.I.** and S.J. Goetz. 2001 Considerations in the use of high spatial resolution imagery: an applications research assessment. *American Society for Photogrammetry and Remote Sensing (ASPRS) Conference Proceedings*, St. Louis, MO.

PAPERS, MEDIA, and SELECTED ABSTRACTS

- Hausman, E.D., **Fisher, J.I.**, L.A. Mancinelli, B.E. Biewald. 2009. Productive and Unproductive Costs of CO₂ Cap-and-Trade: Impacts on Electricity Consumers and Producers. White paper for the National Association of Regulatory Utility Commissioners, The National Association of State Utility Consumer Advocates (NASUCA), The National Rural Electric Cooperative Association (NRECA), The American Public Power Association (APPA). Synapse Energy Economics.
- Biewald, B., **Fisher, J.I.** C James. L. Johnston, D. Schlissel. R. Wilson. 2009. Energy Future: A Green Energy Alternative for Michigan. Whitepaper for Sierra Club. Synapse Energy Economics.
- James, C., **J.I. Fisher**. K Takahashi. 2009. Alaska Climate Change Strategy's Mitigation Advisory Group Final Report: Greenhouse Gas Inventory and Forecast and Policy Recommendations Addressing Greenhouse Gas Reduction in Alaska. Energy Supply and Demand Sectors. Submitted to the Alaska Climate Change Sub-Cabinet.
- James, C. **J.I. Fisher**. K. Takahashi, B. Warfield. 2009. No Need to Wait: Using Energy Efficiency and Offsets to Meet Early Electric Sector Greenhouse Gas Targets. White paper for Environmental Defense Fund. Synapse Energy Economics
- James, C., **J.I. Fisher**. 2008 Reducing Emissions in Connecticut on High Electric Demand Days (HEDD). White paper for the CT Department of Environmental Protection and the US Environmental Protection Agency. Synapse Energy Economics.

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- Hausman, E.D., **J.I. Fisher**, B. Biewald. **2008** Analysis of Indirect Emissions Benefits of Wind, Landfill Gas, and Municipal Solid Waste Generation. White paper for US Environmental Protection Agency. Synapse Energy Economics.
- Schlissel, D., **J.I. Fisher**. **2008** A preliminary analysis of the relationship between CO₂ emission allowance prices and the price of natural gas. White paper for the Energy Foundation. Synapse Energy Economics.
- Fisher, J.I.**, B. Biewald. **2008**. Electricity Sector. in F. Ackerman and E. Stanton. The Cost of Climate Change: What We'll Pay if Global Warming Continues Unchecked. Tufts University.
- Fisher, J.I.**, B. Biewald. **2007**. Electricity Sector. in E. Stanton and F. Ackerman. Florida and Climate Change: The Costs of Inaction. Tufts University.
- Katrina's Carbon Cost. *Living on Earth*. January 4, 2008.
- J.I. Fisher**. Phenological indicators of forest composition in northern deciduous forests. *American Geophysical Union*. San Francisco, CA. December 2007.
- J.I. Fisher**, A.D. Richardson, and J.F. Mustard. Phenology model from weather station meteorology does not predict satellite-based onset. *American Geophysical Union*. San Francisco, CA. December 2006.
- Chambers, J., **J.I. Fisher**, G Hurtt, T. Baker, P. Camargo, R. Campanella, *et al.*, Charting the Impacts of Disturbance on Biomass Accumulation in Old-Growth Amazon Forests. *American Geophysical Union*. San Francisco, CA. December 2006.
- Fisher, J.I.**, A.D. Richardson, & J.F. Mustard. Phenology model from surface meteorology does not capture satellite-based greenup estimations. *American Geophysical Union. Eos Trans.* 87(52). San Francisco, CA. December 2006.
- Fisher, J.I.**, J.F. Mustard, and M. Vadeboncoeur. Green leaf phenology at Landsat resolution: scaling from the plot to satellite. *American Geophysical Union. Eos Trans.* 86(52). San Francisco, CA. December 2005.
- Fisher, J.I.** and J.F. Mustard. Riparian forest loss and landscape-scale change in Sudanian West Africa. *Ecological Association of America*. Portland, Oregon. August 2004.
- Fisher, J.I.** and J.F. Mustard. High spatial resolution sea surface climatology from Landsat thermal infrared data. *American Society for Photogrammetry and Remote Sensing (ASPRS) New England Region Technical Meeting*. Kingston, Rhode Island. November, 2004.
- Fisher, J.I.**, J.F. Mustard, and P. Sanou. Trajectories of vegetation change under controlled land-use in Sudanian West Africa. *American Geophysical Union. Eos Trans.* 85(47). San Francisco, CA. December 2004.
- Fisher, J.I.** and J.F. Mustard. Constructing a climatology of Narragansett Bay surface temperature with satellite thermal imagery. *The Rhode Island Natural History Survey Conference*. Cranston, RI. March, 2003.
- Fisher, J.I.** and J.F. Mustard. Constructing a high resolution sea surface climatology of Southern New England using satellite thermal imagery. *New England Estuarine Research Society*. Fairhaven, MA. May, 2003.
- Fisher, J.I.** and J.F. Mustard. High spatial resolution sea surface climatology from Landsat thermal infrared data. *Ecological Society of America Conference*. Savannah, GA. August, 2003.

Fisher, J.I. and S.J. Goetz. Considerations in the use of high spatial resolution imagery: an applications research assessment. *American Society for Photogrammetry and Remote Sensing (ASPRS) Conference Proceedings*, St. Louis, MO. March, 2001.

SEMINARS and PRESENTATIONS

James, C. and Fisher J. Meeting CT's OTC Commitment with Energy Efficiency and Emissions Controls. Connecticut Department of Environmental Protection. May 28th, 2008.

Fisher, J.I. E. Hausman, and C. James. Emissions Behavior in the Northeast from the EPA Acid Rain Monitoring Dataset. Northeast States for Coordinated Air Use Management (NESCAUM), Boston, MA. January 30, 2008.

Fisher, J.I. J.F. Mustard, and M. Vadeboncoeur. Climate and phenological variability from satellite data. Ecology and Evolutionary Biology, Tulane University. March 24, 2006.

Fisher, J.I., J.F. Mustard, and M. Vadeboncoeur. Anthropogenic and climatic influences on green leaf phenology: new observations from Landsat data. Ecosystems Center at the Marine Biological Laboratory. Woods Hole, MA. Seminar, September 27, 2005.

Fisher, J.I. and J.F. Mustard. High resolution phenological modeling in Southern New England. Woods Hole Research Center. Woods Hole, MA. Seminar, March 16, 2005.