

James George Baldwin

Curriculum Vitae

Visiting Assistant Professor
Boston University Department of Earth and Environment
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Education

- 2003-2009 Ph.D., Boston University Dept. of Geography and Environment
Dissertation: The Spatial and Temporal Evolution of Carbon Emissions Drivers in the United States.
- 2000-2002 M.A., Boston University, Energy and Environmental Analysis
- 1997-2002 B.A., Boston University, Environmental Analysis and Policy

Professional Experience

- 2008-Present Visiting Assistant Professor, Department of Earth and Environment, Boston University
- 2013-Present Adjunct Assistant Professor, Department of Natural and Applied Sciences, Bentley University
- 2010-2011 Lecturer, Department of International Relations, Boston University
- 2005-2008 Instructor, Department of Geography and Environment, Boston University
- 2003-2008 Teaching Fellow, Department of Geography and Environment, Boston University
- 2000-2002 Research Assistant, Environmental Impact of Water Traffic on Boston Harbor Islands National Recreation Area, Department of Geography, Boston University and New England Aquarium,
- 2000-2001 Research Assistant, CLIMB Project (Climate's Long-term Impacts on Metro Boston), Department of Geography, Boston University.
<http://www.tufts.edu/tie/climb/>

Publications

James G. Baldwin, Michael L. Mann, Dana M. Bauer and Mallory M. Nomack. The Response of Developing Island Economies to Coral Bleaching Events. *Proceedings of the National Academy of Sciences* (**In Review**)

Peter A. O'Connor, James G. Baldwin and Bruce T. Anderson. Regional Analysis of Average Climate Exposure: Global Population Weighted Heating and Cooling Degree Days from 1995 to 2010 . *Climatic Change* (**In Review**)

Michael Mann, Peter Berck, Max Moritz, Enric Batllori, James Baldwin, Conor Gately, and Dick Cameron. Modeling Residential Development in California from 2000-2050: Integrating Wildfire Risk, Wildland and Agricultural Encroachment. *Land Use Policy* (**In Review**)

James G. Baldwin and Ian Sue Wing. The Spatiotemporal Evolution of U.S. Carbon Dioxide Emissions: Stylized Facts and Implications for Climate Policy. *The Journal of Regional Science* Vol. 53, Issue 4, October 2013

Clayton Hunter, James G. Baldwin and Michael L. Mann. The Economic Viability of Solar Photovoltaic Canopies as Urban Climate Change Mitigation: An Analysis of the Potential Utilization of Public Space in Boston Massachusetts. *Energy and Environment Research* Vol. 3, No 1, 2013

Michael Mann, Robert Kaufmann, Dana Bauer, Sucharita Gopal, James Baldwin and Maria Del Carmen Vera-Diaz. Ecosystem Service Value and Agricultural Conversion in the Amazon: Implications for Policy Intervention. *Environmental and Resource Economics* Vol. 53, Issue 2, 2012

James G. Baldwin. Beyond Oil, the View from Hubbert's Peak, Book Review. *Ecological Economics*, Vol. 59, Issue 3, September 2006

Paul Kirshen et al. "Infrastructure Systems, Services and Climate Change: Integrated Impacts and Response Strategies for the Boston Metropolitan Area". Report to the U.S. EPA, August 13, 2004.

Publications in Preparation and Working Papers

James G. Baldwin and Ian Sue Wing. Drivers of Regional Carbon Intensity in the United States, For submission to *The Energy Journal* (Expected submission: February 2014)

James G. Baldwin and Ian Sue Wing. Forecasting Global and National Carbon Emission Trajectories from 2010 to 2050. For submission to *Proceedings of the National Academy of Sciences* (Expected submission: Spring 2014)

Research in Progress

Understanding global sectoral carbon intensities (with Peter O'Connor).

Comparative analysis of Chinese and U.S. carbon emissions drivers, implications for international climate policy (with Edward Cunningham).

Forecasting regional carbon dioxide emissions in China (with Edward Cunningham).

The role of interstate migration and demographic change in state energy use and carbon emissions (with Ian Sue Wing).

Population redistribution and land use impacts on carbon flux in MA (with Steve Raciti).

Migration and conservation policy consequences for observed landcover change in Massachusetts (with Steve Raciti and Anne Short).

Tourism and ecosystem services in Small Island Developing States, (with Dana Bauer and Michael Mann).

Presentations and Papers at Conferences and Workshops

The Role of Migration as a Determinant of the Spatial Evolution of U.S. Carbon Emissions (with Michael L. Mann) *2013 Annual Meeting of the Association of American Geographers*, Los Angeles, CA, April 6, 2013

Assessing the Economic Impacts of Coral Bleaching in Small Island Developing States (with Michael L. Mann and Mallory Nomack), *2012 Annual Meeting of the Association of American Geographers*, New York, NY, Feb. 25, 2012

Forecasting Energy Related CO₂ Emissions at Multiple Spatial Scales by Way of an Index Number Decomposition (with Ian Sue Wing), *2011 Annual Meeting of the Association of American Geographers*, Seattle WA, April 16, 2011

Rooftop Technologies for Urban Climate Impact Reduction: Cool Roofs and Integrated PV in Boston (with Jared Newell, Clayton Hunter, Jackie Gushue, Nick Baudouin, Steven Loehr and Josh Levine), *2010 Annual Meeting of the Association of American Geographers*, Washington DC, April 18, 2010

The Changing Regional Structure of U.S. Carbon Dioxide Emissions, 1963-2002 (with Ian Sue Wing), *56th Annual North American Meeting of the Regional Science Association International*, New York NY, Nov. 20, 2008

Understanding the Drivers of U.S. Carbon Dioxide Emissions: A Regional Approach (with Ian Sue Wing), *56th Annual North American Meeting of the Regional Science Association International*, New York NY, Nov. 20, 2008

Invited Lectures and Presentations

The Evolution of Energy Related Carbon Emissions Drivers in the U.S.; Implications for Climate Policy, *Sonoma State University*, Rohnert Park, CA, March 4, 2013

Energy Climate and Sustainability, *Fairleigh Dickinson University*, Madison, NJ February 15, 2013

The Evolution of Energy Related Carbon Emissions Drivers in the U.S.; Implications for Climate Policy, *William Patterson University*, Wayne, NJ, January 25, 2013

Structural Decomposition as an Emissions Forecasting Tool: Policy Implications of Historic and Geographic Trends, *University of South Florida*, St. Petersburg, FL, December 2, 2012

Geopolitics, the Global Economy and U.S. Energy Policy, *Boston University Student and Alumni Energy Club*, Boston, Ma, October 16, 2012

Energy Politics: Energy Implications of Election 2012, *Boston University Alumni Association Energy Affinity Network*, Boston, MA, September 22, 2012

Use of Structural Decomposition for Emissions Forecasting, *Cornell University*, Ithaca NY, October 26, 2011

The Evolution of Energy Related CO2 Emissions in the US: Projections and Implications for a Sustainable Future, *Massachusetts Institute of Technology*, Cambridge USA, February 24, 2011

The Role of Energy and Emissions in Environmental Planning, *University of New England*, Armidale Australia, March 9, 2011 (Telepresence)

Understanding the Structure of Carbon Emissions as a Tool for Climate Adaptation Strategy, *University of Queensland*, Brisbane Australia, December 9, 2008

Courses Taught

Introduction to Environmental Science (CAS GE100), Boston University Dept. of Geography and Environment. *Undergraduate*

Economic Geography (CAS GE103), Boston University Dept. of Geography and Environment. *Undergraduate*

Sustainable Energy (CAS GE150), Boston University Dept. of Earth and Environment. *Undergraduate*

Environmental Modeling (CAS GE275), Boston University Dept. of Geography and Environment. *Undergraduate*

International Economics (CAS IR292), Boston University Dept. of Geography and Environment/ Dept. of International Relations. *Undergraduate*

World Commerce (CAS GE300), Boston University Dept. of Geography and Environment. *Undergraduate*

Environmentally Sustainable Development (CAS GE/IR304) Boston University Dept. of Earth and Environment / Dept. of International Relations

Political Geography (CAS GE331), Boston University Dept. of Geography and Environment. *Undergraduate*

Directed Study : Economic Geography of Sustainable Development (CAS GE492), Boston University Dept. of Geography and Environment. *Undergraduate*

Advanced Economic Geography: Economic Geography of Sustainable Cities (CAS 323/GRS GE723), Boston University Dept. of Geography and Environment. *Undergraduate/Graduate*

U.S. Environmental Policy (CAS GE425/GRS625), Boston University Dept. of Geography and Environment. *Undergraduate /Graduate*

Multivariate Statistics for Geography and Environmental Studies (CAS GE516), Boston University Dept. of Geography and Environment. *Graduate*

Energy Society and Environment (CAS GE519), Boston University Dept. of Geography and Environment. *Graduate*

Physical Principles of the Environment (CAS GE510), Boston University Dept. of Geography and Environment. *Graduate*

Regional Geography (CAS GE201), Boston University Dept. of Earth and Environment.
Undergraduate

Energy Alternatives (NASE 344), Bentley University Department of Natural and Applied Sciences. *Undergraduate*

Refereeing

The Energy Journal, Energy Policy, Climate and Development, The Year in Ecological Economics, Environment and Planning A, Geoforum, Agriculture, Ecosystems & Environment, Applied Geography

Grants and Research Awards

2010-2011 2011 Boston University Alumni College Research Award
2010 *Migration, Settlement, and Environmental Pressure in the United States*,
Boston University Grants for Undergraduate Teaching and Scholarship

Theses Supervised

2012-2013 Peter O'Connor, Ph.D. Geography and Environment, Boston University (3rd reader), Thesis Title: *Aspects of Energy Transitions: History and Determinants*. Completed September 2013
2010-2011 Mallory Nomack, M.A. Energy and Environmental Analysis, Boston University (supervisor) Thesis Title: *Econometric Evaluation of the Economic Impacts of Coral Bleaching Events in Small Island Economies* . Completed May 2011
2009 Jieping Li, Ph.D. Geography and Environment, Boston University (3rd reader), Thesis Title: *Application of Latent Variables in Transport Planning Models*. Completed January 2009

Service

2014-Present Undergraduate Student Group Faculty Adviser, *Boston University Vegetarian Society*
2010-2011 *Director, 2011 Boston University Alumni College: "The Sustainable City"*
2008-Present Undergraduate and Graduate Adviser, Boston University Department of Geography and Environment.
2008-Present Curriculum development for GE103, GE150, GE300, GE/IR304, GE323, GE516 and GE723, Boston University Department of Geography and Environment

- 2006 Departmental Outreach Committee, Boston University Department of Geography and Environment.
- 2003 Graduate Student Representative, Boston University Dept. of Geography and Environment

Professional Memberships

International Association for Energy Economics, Association of American Geographers, Regional Science Association International, The International Society for Ecological Economics, Association of Environmental and Resource Economists

Languages

Native speaker of English, Conversant in French