

EDUCATION

University of Maryland PhD in Geography Dissertation: <i>Spatial and Seasonal Distribution of Carbon Dioxide Emissions from Fossil-Fuel Combustion; Global, Regional, and National Potential for Sustainable Bioenergy from Residue Biomass and Municipal Solid Waste</i>	College Park, MD 12/09
University of North Dakota MS in Space Studies Graduate Certificate in Geographical Information Sciences (GISc) Thesis: <i>Improving the Temporal and Spatial Resolution of Carbon Dioxide Emissions Estimates from Fossil-Fuel Consumption</i>	Grand Forks, ND 8/05 8/05
Colorado State University Graduate Certificate in Statistical Theory and Methods (equivalent) BA in General Philosophy BS in Mathematics, <i>magna cum laude</i> Minor in Physics, minor in Philosophy	Fort Collins, CO 5/03 5/01 12/00 12/00
Mesa State College BA in Fine and Performing Arts (Music), <i>summa cum laude</i>	Grand Junction, CO 12/97

RESEARCH EXPERIENCE

Wilderness Research Foundation <i>Field Scientist</i> Analyzed soil carbon flux from glacial moraines, collected soil samples for carbon dating.	Bellingshausen, Antarctica 11/09 - Present
Joint Global Change Research Institute <i>Research Assistant</i> Developed model for global biomass fuels from agricultural and forestry residues; modeled sensitivity of global climate, land use, and energy markets to hypothetical global climate policies.	College Park, MD 8/06 - 12/09
Oak Ridge National Laboratory <i>Advanced Short Term Research Opportunity Intern</i> Analyzed patterns and trends of fossil fuel CO ₂ emissions for the US and Asia.	Oak Ridge, TN 6/08 - 8/08
World Resources Institute <i>Research Intern, Greenhouse Gas Initiative Protocol</i> Developed performance standards for forest carbon management plans.	Washington, DC 2/07 - 5/07
Institute for Geographic Studies and Natural Resources Research <i>National Science Foundation Graduate Intern</i> Developed models for soil organic carbon and soil nitrogen based on land use, agriculture, and climate for China. Analyzed spatiotemporal fossil energy and bioenergy consumption patterns and CO ₂ emissions trends for China.	Beijing, China 6/06 - 8/06

University of Maryland <i>Research Assistant, Department of Geography</i> Analyzed LANDSAT remote sensing data of North American forest disturbances.	College Park, MD 8/05 – 5/06
University of North Dakota <i>Research Assistant, Department of Space Studies</i> Collected and analyzed data on fossil-fuel consumption to develop CO ₂ emission inventories.	Grand Forks, ND 6/03 – 8/05
Seoul National University <i>National Science Foundation Graduate Intern</i> Analyzed energy and atmospheric CO ₂ data from Korea.	Seoul, Korea 6/04 – 8/04
Mesa State College <i>Librarian, Music Department</i> Developed and maintained database of library holdings.	Grand Junction, CO 9/97 – 12/97

TEACHING EXPERIENCE

University of Maryland <i>Mentor, Gemstone Honors Program, School of Engineering</i> <i>Instructor of Climatology, Department of Geography</i>	College Park, MD 1/08 – Present 9/08 – 12/08
Colorado State University <i>Instructor of Activity Based Statistics (with Laboratory)</i> <i>Teaching Assistant for Statistical Methods and Biostatistics</i> <i>Tutor, Academic Advancement Center (Mathematics, Physics, & Logic)</i>	Fort Collins, CO 5/01 – 5/03 5/01 – 8/01 9/98 – 12/99
Loveland High School <i>Student Teacher, Department of Mathematics</i>	Loveland, CO 8/00 – 10/00
Smoky Hill High School <i>Student Teacher, Department of Fine and Performing Arts (Music)</i>	Aurora, CO 8/97 – 12/97
Dalton Elementary School <i>Student Teacher (Music)</i>	Aurora, CO 8/97 – 12/97
Bookcliff Middle School <i>Student Intern (Music)</i>	Grand Junction, CO 1/97 – 5/97
Tope Elementary School <i>Student Intern (Music)</i>	Grand Junction, CO 1/97 – 5/97
Mesa State College <i>Tutor (Music Theory & Ear Training)</i>	Grand Junction, CO 9/95 – 12/97

PUBLICATIONS

- Gregg, J.S.,** S.J. Smith (2010). Global and regional potential for bioenergy from agricultural and forestry residue biomass. *Mitigation and Adaptation Strategies for Global Change* 15 (3): 241-262.
- Gregg, J.S.** (2010). National and regional generation of municipal residue biomass and the future potential for waste-to-energy implementation. *Biomass and Bioenergy* 34 (3): 379-388.
- Gregg, J.S.,** R.C. Izaurrealde (2010). Effect of crop residue harvest on long-term crop yield, soil erosion, and nutrient balance: trade-offs for a sustainable bioenergy feedstock. *Biofuels* 1 (1): 69-83.
- Gregg, J.S.,** L.M. Losey, R.J. Andres, T.J. Blasing, & G. Marland (2009). The Temporal and Spatial Distribution of Carbon Dioxide Emissions from Fossil-Fuel Use in North America. *Journal of Applied Meteorology and Climatology* 48 (12): 2528-2542.
- Gregg, J.S.,** R.J. Andres, & G. Marland (2008). China: the emissions patterns of the world leader in CO₂ emissions from fossil fuel consumption and cement production. *Geophysical Research Letters* 35: L08806.
- Erickson III, D.J., R.T. Mills, **J.S. Gregg,** T.J. Blasing, F.M. Hoffman, R.J. Andres, M. Devries, Z. Zhu, & S.R. Kawa (2008). Estimated monthly global emissions of anthropogenic CO₂ and their impact on calculated atmospheric CO₂. *Journal of Geophysical Research* 113: 1-10.
- Zeng, N., Y. Ding, J. Pan, H. Wang, & **J. Gregg** (2008). Climate Change—the Chinese Challenge. *Science* 319: 730-731.
- Gregg, J.S.** & R.J. Andres (2008). A Method for Estimating the Temporal and Spatial Patterns of Carbon Dioxide Emissions from National Fossil-Fuel Consumption. *Tellus* 60B: 1-10.
- Gurney, K., W. Ansley, D. Mendoza, B. Seib, G. Petron, G. Frost, **J. Gregg,** M. Fischer, D. Pataki, K. Ackerman, S. Houweling, K. Corbin, R. Andres, & T.J. Blasing (2007). Research Needs for Process-driven, Finely Resolved Fossil Fuel Carbon Dioxide Emissions. *EOS* 88 (49): 542-543.
- Marland, G., R.J. Andres, T.J. Blasing, T.A. Boden, C.T. Broniak, **J.S. Gregg,** & L.M. Losey (2006). Part II: Energy, Industry, and Waste Management Activities: An Introduction to CO₂ Emissions from Fossil Fuels, in *State of the Carbon Cycle Report (SOCCR)*.
- Gregg, J.S.** (2004). Development of a Monthly Emissions Database for the World's Leading CO₂ Emitting Countries. *CDIAC Communications Virtual Newsletter*.
- Gregg, J.S.** (2004). A Summer in Korea. *Korea Science and Engineering Foundation (KOSEF) Newsletter* 48:12-13.
- Gregg, J.S.** (2003). *Getting Through Statistics*. Introductory Statistics Textbook and Lab Manual (243 pp.) <http://www.jsgregg.com/teaching/ST101/statistics.pdf>

CONFERENCE PRESENTATIONS

- Gregg, J.S.** (2010). Fossil Fuel CO₂ Emissions and Modeling Future Emissions Scenarios. King George Island Summer Institute, Bellingshausen Station, Antarctica, 1/21/10, *Invited Presentation*.
- Gregg, J.S.** (2009). The Relationship Between Crop Residue Harvest, Erosion, Carbon and Nitrogen Cycles in the Kalamazoo Watershed. American Geophysical Union (AGU), San Francisco, 12/18/09.
- Gregg, J.S.** (2009). Sustainable Harvest Rates of Agricultural Residues. Great Lakes Bioenergy Research Center (GLBRC), Battle Creek, MI, 5/05/09.
- Gregg, J.S.** & S.J. Smith (2008). Global and Regional Future Potential for Energy from Municipal Solid Waste. American Geophysical Union (AGU), San Francisco, 12/18/08.
- Gregg, J.S.** & S.J. Smith (2008). Global and Regional Potential for Biofuels from Residue and Waste. American Geophysical Union (AGU), San Francisco, 12/13/07.
- Gregg, J.S.** (2007). Liquid Biofuels: Cheap, Abundant, or Low Impact? United States Society of Ecological Economics (USSEE), New York, 6/26/07.
- Gregg, J.S.** & S. Wang (2007). Soil Organic Carbon and Soil Nitrogen in Chinese Soils: Textural, Climatic, and Ecological Influences. American Geophysical Union (AGU), Acapulco, Mexico, 5/23/07.
- Gregg, J.S.** & R.J. Andres (2006). The Seasonal and Spatial Distribution of Carbon Dioxide Emissions from Fossil Fuels in Asia. American Geophysical Union (AGU), San Francisco, CA, 12/8/06, *Outstanding Student Paper Award*.
- Gregg, J.S.** & L.M. Losey, R.J. Andres, & G. Marland (2005). Anthropogenic Carbon Dioxide Emissions at the State and Monthly Levels. Seventh International Carbon Dioxide Conference (ICDC7), Boulder, CO, 9/28/05.
- Gregg, J.S.** & R.J. Andres (2005). Modeling the Spatial Distribution of Fossil-Fuel Based Carbon Dioxide Emissions. DOE/NSF EPSCoR, Morgantown, WV, 6/15/05.
- Gregg, J.S.** & R.J. Andres (2005). Carbon Dioxide Emissions From Fossil-Fuel Consumption in Indonesia. American Geophysical Union (AGU), New Orleans, LA, 5/25/05.
- Gregg, J.S.** & R.J. Andres (2005). A Comparison of Anthropogenic Carbon Dioxide Emissions Datasets: UND and CDIAC. American Geophysical Union (AGU), New Orleans, LA, 5/25/05.
- Gregg, J.S.** & R.J. Andres (2004). Modeling Seasonality In German Carbon Dioxide Emissions From Fossil-Fuel Consumption. American Geophysical Union (AGU), San Francisco, CA, 12/15/04.
- Gregg, J.S.** & R.J. Andres (2004). Modeling Seasonality In Japanese And Korean Carbon Dioxide Emissions From Fossil-Fuel Consumption. International Global Atmospheric Chemistry (IGAC), Christchurch, New Zealand, 9/4/04.
- Gregg, J.S.** & R.J. Andres (2004). Modeling Seasonality in Carbon Dioxide Emissions From Fossil-Fuel Consumption. American Geophysical Union (AGU), Montréal, QB, Canada, 5/21/04.
- Gregg, J.S.** & R.J. Andres (2003). A Method for Improving Temporal and Spatial Resolution of Carbon Dioxide Emissions. American Geophysical Union (AGU), San Francisco, CA, 12/11/03.
- Gregg, J.S.** & R.J. Andres (2003). A Technique for Improving Spatial and Temporal Resolution of Carbon Dioxide Emissions. ND/SD EPSCoR Joint Conference, Fargo, ND, 9/5/03.

TECHNICAL SKILLS

Productivity Software

Microsoft Office Suite (Word, PowerPoint, Excel & Access), Dreamweaver, html, xml

Geospatial Analysis

ERDAS Imagine, ENVI, ESRI ArcGIS, MapViewer

Statistical Computing and Data Analysis

R, S-Plus, SAS, Visual Basic for Applications (VBA)

Specialized Scientific Models and Equipment

ArcAPEX, ArcSWAT, CBM-CFS3, G-CAM, i_EPIC, Jabowa3, LICOR LI-8100

AFFILIATIONS

Association of American Geographers (AAG)

American Geophysical Union (AGU)

International Society of Ecological Economics (ISEE)

The Planetary Society

Green Technology Entrepreneurship Academy, UC Davis Center for Entrepreneurship

SERVICE & AWARDS

University of Maryland Solar Decathlon LEAFHouse	1/07 – 6/07
University of Maryland Graduate Committee Student Representative	8/05 – 5/06
Dakota Space Society	9/03 – 8/05
Boy Scouts of America Venturing Crew Associate Advisor	1/01 – 1/04
AΦΩ National Coed Community Service Fraternity	2/01 – 5/03
CSU Outstanding Graduate Student Award Recipient	5/03
Distinguished Service Key (DSK) Recipient	5/03
Colorado State Chapter Vice President of Membership	5/02 – 5/03
Colorado State Chapter Sergeant at Arms	5/01 – 12/01
El Centro Student Services & Center	
Science, Mathematics and Technology Education	
(CSMATE) TRIUNFO After School Volunteer Tutor	1/99 – 5/99
AX National Honor Scholarship Society	Inducted 2/97
Music Educators National Conference (MENC)	1/94 – 12/97
Mesa State Chapter President	8/95 – 5/96

PERSONAL INTERESTS

Classical Guitar, Music Composition, Figure Drawing, Home Improvement, Hiking, Travel