

JAY STERLING GREGG

9125 Autoville Drive, College Park, MD, 20740 • Phone: 301-807-9855 • gregg.jay at gmail.com

MISSION STATEMENT

In our changing world where energy demand is growing, environmental consciousness is broadening, and livelihoods are improving, I aspire to be at the forefront of research in low carbon energy in order to foster a more harmonious relationship between us and our planet.

EDUCATION

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

RESEARCH EXPERIENCE

Research Assistant Joint Global Change Research Institute, College Park, MD	8/06 – Present
Biomass fuels from agricultural and forestry residues; Global climate, energy policy, and economic modeling	
Advanced Short Term Research Opportunity (ASTRO) Intern Oak Ridge National Laboratory, Oak Ridge, TN	6/08 – 8/08
Fossil energy consumption and emission patterns in North America and East Asia	
Research Intern World Resources Institute, Washington, DC	2/07 – 5/07
Land use, forest management, biological carbon sequestration, biofuels	
NSF Graduate Intern Institute for Geographic Studies and Natural Resources Research (IGSNRR), Beijing, China	6/06 – 8/06
Soil organic carbon, soil nitrogen, agriculture and energy in China	
Research Assistant University of Maryland, Department of Geography, College Park, MD	8/05 – 5/06
Remote sensing of North American forest disturbances	
Research Assistant University of North Dakota, Department of Space Studies, Grand Forks, ND	6/03 – 8/05
Energy consumption and carbon dioxide emissions	
NSF Graduate Intern Seoul National University, Seoul, Republic of Korea	6/04 – 8/04
Analyzing energy and atmospheric carbon dioxide data from the Republic of Korea	
Librarian Mesa State College, Grand Junction, CO	9/97 – 12/97

TEACHING EXPERIENCE

Instructor (Climatology), Department of Geography, University of Maryland, College Park, MD	9/08 – Present
Mentor (Gemstone Honors Program), School of Engineering, University of Maryland, College Park, MD	1/08 – 5/08
Instructor (Statistics), Colorado State University, Fort Collins, CO	5/01 – 5/03

Student Teacher (Mathematics), Loveland High School, Loveland, CO	8/00 – 10/00
Tutor (Mathematics, Physics, Logic), Colorado State University, Fort Collins, CO	9/98 – 12/99
Student Teacher (Music), Smoky Hill High School, Aurora, CO	8/97 – 12/97
Student Teacher (Music), Dalton Elementary School, Aurora, CO	8/97 – 12/97
Student Intern (Music), Bookcliff Middle School, Grand Junction, CO	1/97 – 5/97
Student Intern (Music), Tope Elementary School, Grand Junction, CO	1/97 – 5/97
Tutor (Music Theory, Ear Training), Mesa State College, Grand Junction, CO	9/95 – 12/97

PUBLICATIONS

- Gregg, J.S.**, L.M. Losey, R.J. Andres, T.J. Blasing, & G. Marland (in review). The Temporal and Spatial Distribution of Carbon Dioxide Emissions from Fossil-Fuel Use in North America.
- 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*.

CONFERENCE PRESENTATIONS

- Gregg, J.S.** & S. Smith (2007). 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

COMPUTER SKILLS

Microsoft Office Suite (Excel programming and database management)

R / S-Plus Statistical software

SAS Programming I: Essentials, completed 7/03

ERDAS Imagine Satellite image processing software

ENVI Satellite image processing software

ESRI ArcGIS Virtual Classroom Learning ArcGIS Parts I and II, completed 11/04; Spatial Analyst, completed 4/05

Dreamweaver Web design and html

O^{bj}ECTS MiniCAM, CBM-CFS3, Jabowa 3, i_EPIC specialized scientific, economic, and ecological models

AFFILIATIONS

Association of American Geographers (AAG)

American Geophysical Union (AGU)

International Society of Ecological Economics (ISEE)

The Planetary Society

SERVICE

University of Maryland Solar Decathlon LEAFHouse 1/07 – 6/07

University of Maryland Department of Geography 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

ΑΦΩ 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 for 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

REFERENCES

Gregg Marland, Distinguished Scientist, Oak Ridge National Laboratory

Robert Andres, Scientist, Oak Ridge National Laboratory

T.J. Blasing, Scientist, Oak Ridge National Laboratory

Steven Smith, Senior Staff Scientist, Joint Global Change Research Institute/ Pacific Northwest National Laboratory

César Izaurralde, Laboratory Fellow, Joint Global Change Research Institute/ Pacific Northwest National Laboratory