

Sarah Stapleton

Education

Doctoral candidate, Environmental Studies, University of Colorado at Boulder.

M.S. Civil Engineering (specialty Water Resources), University of Colorado at Boulder, July 2004.

Thesis: "Seasonal Stochastic Streamflow Forecasts for the Yakima River Basin and Implications to Salmon Survival and Streamflow Management"

B.S. Physics, Cum Laude, Creighton University, May 2002.

Research

Interests:

My current research interests lie in understanding how societies perceive resources in the face of climate change, particularly water, and how those perceptions shape resource policy and distribution. I hope to do a comparative study between a community in Puerto Rico and a community in Bermuda, in which I work with the communities on identifying their goals in managing their water resources on a long-term basis.

Experience:

July 2005 through Present: Graduate Research Assistant for the Natural Hazards Center at the University of Colorado.

January 2004 to July 2005: Graduate Research Software Engineer for The Center for Advanced Decision Support for Water and Environmental Systems (CADSWES) at the University of Colorado.

May 2003 to August 2005: Streamflow forecasting in the Yakima River Basin and implications for water management. Advisor: Diane McKnight

January 2002 to May 2002: Independent research project examining the angular correlation of nuclear decay processes and energy decay schemes across thin films.

November 1999 to November 2000: Research Assistant, Creighton University collaboration with NASA to use Proton Induced X-ray Emission to analyze composition of the asteroid Eros.

September 1998 to June 1999: Research Assistant, Slow Controls and Time Projection Chamber research groups of Creighton University at Brookhaven National Laboratory.

Publications:

Natural Hazards Center. 2005. Holistic Disaster Recovery: Ideas for Building Local Sustainability after a Natural Disaster. Boulder, CO: University of Colorado Natural Hazards Center.

Manuscripts in Progress:

"Incorporating Climate Information into Streamflow Forecasts"

"Climate Variability and Instream Salmon Survival in the Pacific Northwest"

Teaching Experience:

University of Colorado, SMART Program mentor, Summer 2003.

Creighton University, Physics Teaching Assistant, Jan. 2000 to May 2002:

General Physics laboratory and discussion sections: The concepts I covered in the labs and discussion sections included: mechanics, electricity and magnetism, thermodynamics, optics, wave mechanics, and an introduction to nuclear decay processes.

Astronomy laboratory and discussion section: I covered star type identification, basic planetary motion, and asteroid composition, as well as some theories of our solar system's development and evolution.

Modern Physics: I graded and helped tutor students on the concepts of relativity and quantum mechanics.

Physics Tutor: I helped students with physics and astronomy concepts. I also helped students prepare for the MCAT exam.

Awards and Honors

2002-2003 University of Colorado Chancellor's Teaching Fellowship through the Alliance for Graduate Education and the Professoriate (AGEP) program.

2000, 2002 Schroedinger's Cat Scholarship for Women in Physics

2000-2002 Creighton University Scholar

1999-2000 Ronald McDonald House Charities: Hispanic American Commitment to Educational Resources (HACER) Scholarship

1997, 1998 Advanced Placement Scholar

1997 National Merit Hispanic Scholar Finalist

Relevant Travel:

March 2006. Prototype Training Workshop for Educators on the Effects of Climate Change on Seasonality and Environmental Hazards, Sponsors: NCAR and Asia-Pacific Network for Global Change Research, Bangkok, Thailand.