

ELIZABETH C. MCNIE
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Education

Ph.D. Candidate: Environmental Studies Program Fall 2002 – pres.

University of Colorado: Boulder. Expected completion August 2007.

Research areas: science and technology policy, utility of scientific information for policy, decision making, boundary organizations, climate change science and policy responses, interdisciplinary research.

Dissertation: “*Co-producing Useful Scientific Information for Climate Policy: Informing Science Policy Research and Decision-Support*”. Advisor: Roger Pielke Jr.

- Science and Technology Policy Certificate (in progress)
- Graduate Teaching Certificate (in progress)

Master of Arts: Psychology - Organization Development May 2001

Sonoma State University: Rohnert Park, California

Thesis: “*Fighting Back Partnership: Building Successful Community-Wide Collaborations*”. An exploration of the process by which a privately funded national program to reduce the use and abuse of drugs and alcohol established successful community-wide collaborations in a multicultural city. The organization’s success in developing such collaborations, and consequently successful programs, is attributed to both conventional and unconventional organizational development practices.

Bachelor of Science: Marine Transportation with High Honors April 1994

California Maritime Academy: Vallejo, California

- Minor: Marine Engineering
- Awarded 3rd Mate License, United States Merchant Marine Officer
- Management Intern: Department of Defense Resource Support Team, Office of Economic Adjustment. Participated in maritime security planning and logistics at the Goodwill Games in Seattle, Washington July-August 1990.

Honors, Awards and Fellowships

Fellow – National Science Foundation: *Integrative Graduate Education and Research Traineeship Program*:

“*Carbon, Climate and Society Initiative*”, a three-year research fellowship consisting of 13 Ph.D. students from physical sciences, natural sciences, social sciences, journalism and business. Fall 2003 – pres.

Nominated – Outstanding Graduate Teaching Assistant, Environmental Studies Program for the United Government of Graduate Students Annual Award. 2003.

Award for Excellence in the Movement of Bulk Liquid Cargo from the Mobil Oil Corporation. 1994.

Award for Community Service from the Propeller Club of San Francisco. 1994.

Award for Excellence in Shiphandling from the San Francisco Bar Pilots. 1994.

Award for Research and Scholarship Women’s Propeller Club of San Francisco. 1994.

U.S. Training Ship Golden Bear Award for Outstanding Leadership, California Maritime Academy. 1993.

Award for Leadership and Service from the Student Affairs Program, California Maritime Academy. 1993.

The Jacob Nebeling Scholarship, California Maritime Academy. 1990-91.

Grants Awarded

NSF Supplemental Research Grant - \$30,575 (co-recipient) project no. 1541212. Summer 2005. “*Climate Change Lessons from Iceland: An Interdisciplinary Study of Vulnerabilities and Strategies*”. Our four-person team investigated paleo-climate records, examined national strategic policies for adaptation to climate change and produced an educational CD-ROM geared toward undergraduate education.

Travel Grant awarded by Environmental Studies Program to host session and attend the 6th *Open Meeting of the Global Change Research Community*, Bonn, Germany, October 9-13, 2005. (Grant declined due to other funding options).

Travel Grant awarded by the *Graduate Student Conference on Science and Technology in Society* conference to attend and present paper in Washington, D.C., April 23 – 24, 2005.

Travel Grant awarded by the National Science Foundation, Integrative Graduate Education and Research Traineeship program, Carbon, Climate and Society Initiative to attend and present poster at the *American Association for the Advancement of Sciences (AAAS) Annual Meeting*, Washington D.C., February 17-21, 2005.

Travel Grant awarded by the Political Science Department to attend and present paper at *Policy Sciences Annual Institute* at Yale University, New Haven, Oct 21-24, 2004.

Graduate Student Grant awarded by Gordon Research Conferences to attend and present poster at the *GRC: ‘Science and Technology Policy’* at Big Sky, MT, August 16-20, 2004.

Research Activities

Science Policy Assessment and Research on Climate (SPARC) – Research Assistant.

SPARC is a \$2.4 NSF-sponsored project investigating decision making under uncertainty under the U.S. Climate Change Research Initiative. The project involves research, outreach and education in order to improve the connection between climate science research and climate decision-makers. Fall 2004 – pres.

Reconciling the Supply and Demand of Scientific Information for Decision Makers – Research Assistant.

Research Assistant on a NSF-sponsored project to identify research priorities with the North American Carbon Program that will enhance the linkages between the supply of and demand for scientific information relating to carbon cycle research and application. This research is also part of the SPARC project. Fall 2003 – pres.

‘Our’ Science, ‘Their’ Science: Conflicting Agendas and Disputed Theories Concerning Amazonia –

Research Assistant. An NSF-sponsored project that explores issues relating to the politicization of science as it relates to ongoing international research with the Large Biosphere – Atmosphere research project in Amazonia. With Dr. Myanna Lahsen. Fall 2004 – 2005.

Key Symbols of Identification and Frames of Attention Before and After the September 11, 2001 Terror Attacks – Research Project.

Research investigated how our sense of national identification and collective frames of attention changed in response to the 9-11 terror attacks. Using word counting and concordance software, I identified trends and issues that emerged from analysis of signed editorials from the New York Times from August 1 through December 31 2001. Fall 2003.

The U.S. Commission on Ocean Policy: An Appraisal of the Intelligence Function – Research Project.

An examination of the process used by the U.S. Commission on Ocean Policy to gather quality information that will be used to make policy recommendations to the President relating to all aspects of the ocean environment, marine transportation and commerce, coastal ecosystems, recreation, etc. Spring 2003.

Research Activities (cont.)

Biodiesel and Large Ocean-Going Vessels: Rough Seas or Smooth Sailing Ahead? – Research Project.

Conducted a policy and technical assessment regarding the use of biodiesel fuel with large, slow speed and medium speed diesel engines on sea-going vessels. Report identified specific engineering considerations, emissions characteristics and current policy climate that influence the potential use of biodiesel fuels as a replacement for petroleum-based fuels. Prepared for the California State University - Maritime Academy. Spring 2003.

Publications

Peer Reviewed

McNie, Elizabeth C. (forthcoming). “Reconciling the Supply of Scientific Information with Users’ Demands: An Analysis of the Problem and Review of the Literature”. *Environmental Science & Policy*.

McNie, Elizabeth C. and David Guston (forthcoming). “Boundary organizations and the policy sciences”. *Policy Sciences*.

Reviewed by Editorial Board

McNie, Elizabeth C. (2005). “Archeological Ethics”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

McNie, Elizabeth C. and Tind Shepper Ryen (2005). “Brent Spar”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

McNie, Elizabeth C. (2005). “Genocide”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

McNie, Elizabeth C. (2005). “Weapons of Mass Destruction”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

McNie, Elizabeth C. (2005). “Zoos”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

Wallace, Jonathan and Elizabeth McNie (forthcoming, 2nd edition). “Ships”. Encyclopedia of Science, Technology, and Ethics. Carl Mitcham, editor-in-chief. Minneapolis: Macmillan Reference USA.

Presentations, Posters & Abstracts

“**Questioning utility: What should count as useful (scientific) information?**” (abstract accepted, paper forthcoming). Paper presentation (Elizabeth McNie and Eirik Fisher) for session, “Questioning Relevance: Exploring the Boundary Between STS and STP” at the *Society for Social Studies of Science Annual Meeting*, November 2-4, Vancouver, B.C., CA.

“**The Science and Technology Policy Handbook: Mapping the Field**” (forthcoming). Poster presentation (Genevieve Maricle and Elizabeth McNie) at the *Gordon Research Conference: ‘Science and Technology Policy’* August 13-18, 2006 at Big Sky Resort, MT.

Presentations, Posters & Abstracts (cont.)

“Producing useful scientific information for policy: Lessons learned from the Regional Integrated Sciences and Assessments Program” (forthcoming). Poster presentation at *the Gordon Research Conference: ‘Science and Technology Policy’* August 13-18, 2006 at Big Sky Resort, MT.

“Building Healthy Group Dynamics in the Classroom”. Workshop presenter at the University of Colorado *Graduate Teacher Program Special Workshop Series*, April 17, 2006 in Boulder, CO.

“Linking Science with Policy: Are Boundary Organizations the Answer?” Poster presentation at the *CIRES Members’ Council All-Institute Symposium*, Cooperative Institute for Research in Environmental Sciences, April 12, 2006 at the University of Colorado in Boulder, CO.

“Exploring Climate Change Issues in Iceland: The Perils and Promise of Interdisciplinary Research”. Poster Presentation (Elizabeth McNie, Yarrow Axford, Hillary Rosner, and Amanda Haag) at the *36th Annual International Arctic Workshop* at the Institute for Arctic and Alpine Research, March 16-18, 2006 at the University of Colorado, in Boulder CO.

“Reconciling the Supply of Scientific Information with Users’ Demands: An Analysis of the Problem”. Paper presentation at the *Science Policy Assessment and Research on Climate Workshop & Meeting*, December 12-13, 2005 in Boulder, CO.

“Climate Science Research and Assessment”.

Session co-organizer with Dr. Maria Carmen Lemos at the *6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community*, October 9-13, 2005 in Bonn, Germany.

“Climate Change, Experiential Education and Teenagers: Lessons Learned from My Summer Exploring Iceland, Greenland, and Nunavut with ‘Students on Ice’”.

Public presentation at the *Center for Science and Technology Policy Research Noontime Seminar Series*, September 7, 2005 in Boulder, CO.

“The Carbon, Climate, and Society Initiative: An Interdisciplinary Approach to Climate Change Education and Research”.

Poster presentation (Erika Englehaupt and Elizabeth McNie) at the *National Science Foundation Integrative Graduate Education and Research Traineeship Project Meeting*, May 18-20, 2005 in Washington, D.C.

“Enhancing Linkages between Global Climate Science and Policy: A Research Proposal”.

Abstract accepted at *The 16th Global Warming International Conference*, April 19-21, 2005 in New York, NY. (Unable to attend conference.)

“Science Policy for the New Millennium: Reconciling the Supply and Demand of Scientific Information for Decision Makers”.

Paper presentation at the *2005 Graduate Student Conference on Science and Technology in Society* conference, April 23 – 24, 2005 in Washington D.C.

“Beyond the Linear Model: Introducing ‘Pasteur’s Quadrant’”.

Public presentation at the *Science, Technology and Decision Making Symposium* sponsored by the Center for Science and Technology Policy Research, Cooperative Institute for Research in Environmental Sciences, February 25, 2005 at the University of Colorado in Boulder, CO.

“Enhancing the Linkages between the Supply and Demand of Scientific Information: Are Boundary Organizations the Solution?”

Poster presentation at *The American Association for the Advancement of Science Annual Meeting*, February 17-21, 2005 in Washington D.C.

Presentations, Posters & Abstracts (cont.)

“Ethical Issues in the Classroom: What Does Integrity Have to do with My Classroom?”

Workshop co-panelist at the University of Colorado *Graduate Teacher Program Spring Intensive*, January 6, 2005 in Boulder, CO.

“Reconciling Supply and Demand of Environmental Science Information for Policy Makers”.

Abstract accepted at *The International Conference on Environmental Science and Technology* sponsored by the American Academy of Sciences, January 23-26, 2005 in New Orleans, LA. (Unable to attend conference.)

“Active Listening: The Key to Effective Communication”.

Workshop presenter at the University of Colorado *Graduate Teacher Program Special Workshop Series*, October 25, 2005 in Boulder, CO.

“Key Symbols of Identification and Frames of Attention before and After the September 11, 2001 Attacks: A Methodological Exploration”.

Paper presentation at *The Policy Sciences Annual Institute*, Yale University Law School October 21-24, 2004 in New Haven, CT.

“A Better Model for the Flow of Scientific Information to Environmental Policy Makers: Reconciling Supply and Demand”.

Paper presentation at *Monitoring Science and Technology for Environmental Sustainability* conference, September 21-24, 2004 in Denver, CO.

“Old Science, New Science”.

Invited Closing Plenary Speaker at *Monitoring Science and Technology for Environmental Sustainability* conference, September 21-24, 2004 in Denver, CO.

“Key Symbols of Identification and Frames of Attention before and After the September 11, 2001 Terror Attacks: Considerations for the World Revolution of Our Time”.

Paper presentation at the *Rocky Mountain Interdisciplinary History Conference*, September 24-25, 2004 at the University of Colorado in Boulder, CO.

“Reconciling Supply and Demand of Scientific Information: A Review of the Literature”.

Workshop panelist and paper presentation at *Carbon Cycle Science: Understanding and Enhancing the Linkages between Decision Making and Carbon Cycle Research*, September 16-17, 2004 at Colorado State University in Fort Collins, CO.

“Beyond the Linear Model: Reconciling the Supply and Demand of Scientific Information for Science Policy”.

Poster presentation at the *Gordon Research Conference: ‘Science and Technology Policy’* August 16-20, 2004 at Big Sky Resort, MT.

Service & Outreach

Chairman of the Board, Co-Chairman of the Board, and Board Member, Environmental Center, University of Colorado at Boulder. The Environmental Center is the largest student run environmental center in the country with an annual budget over \$700,000. Activities of the Center have generated over \$5 million dollars in cost savings for the university through a variety of programs and research efforts. Fall 2005 – pres.

Lead Graduate Teacher – Environmental Studies Program. Fall 2004 – spring 2006.

Volunteer Coordinator, Microbreweries for the Environment. Spring 2006. Annual fundraising event to benefit the University of Colorado Environmental Center and additional non-profit organizations.

Service & Outreach (cont.)

Organizing Committee Member, Environmental Justice Speakers Series, sponsored by the Environmental Studies Graduate Students, the United Government of Graduate Students and the Environmental Center at the University of Colorado at Boulder, Spring 2006.

Organizing Committee Member, Policy Sciences Summer Workshop at the University of Colorado, Boulder. June 8-11, 2006.

Contributing Author to the Center for Science and Technology Policy Research Blog, *Prometheus*. Posts include: “Nano concerns and the production of useful scientific information” November 30; “What kind of leadership does FEMA need?” September 9; “What would Moby Dick think?” June 24; “Beware of Snake Oil Salesmen” June 20. 2005.

Education Team Member, *the Arctic Youth Environmental Leadership Expedition 2005*, sponsored by “Students on Ice”, a Canadian non-profit organization that offers unique learning expeditions to the Antarctic and the Arctic. July 2005.

Volunteer, *Presidential Science Advisor Lecture Series*, Center for Science and Technology Policy Research, University of Colorado. 2004-2005.

Participant in a debate on “*Preemption as U.S. Foreign Policy*” Co-sponsored by the United Nations Foundation, the Rockefeller Brothers Fund and the Open Society Institute. November 2003.

Editor and Co-Editor-in-Chief of *The Binnacle*, a monthly campus newspaper. 1993.

Keynote Speaker, ‘*Expanding Your Horizons Conference*’ Fairfield, California. November 1992.

Corps Commander. Appointed as highest-ranking student leader on campus. 1991.

Charter President, Ocean Resources Club. Organized numerous educational events. 1989-1991.

Orientation Leader for new students, California Maritime Academy. 1989, 1990, 1991.

Professional Affiliations

American Association for the Advancement of Science
North American Association for Environmental Education
Society for Social Studies of Science

Teaching Experience

University of Colorado – Boulder

Spring 2006	Co-Instructor, ENVS 5001-06 – <i>Topics in Science and Technology Policy</i>
Fall 2002	Teaching Assistant, ENVS 1000 – <i>Introduction to Environmental Studies</i>
Spring 2003	Teaching Assistant, ENVS 1000 – <i>Introduction to Environmental Studies</i>

California State University – Maritime Academy, Vallejo CA

Note: ‘Special Consultant’ is the title used for lecturers at the Maritime Academy after 1997.

U.S.M.S. = United States Maritime Service

June 2006	Marine Vocational Instructor, U.S.M.S.
Summer 2003	Special Consultant, CRU 300 – <i>Celestial Navigation</i> (part of Sea Training III) Watch Officer U.S.M.S., CRU 100 – <i>Sea Training I</i> Watch Officer U.S.M.S., CRU 300 – <i>Sea Training III</i>
Summer 2002	Special Consultant, CRU 190 – <i>Vessel Familiarization</i> Special Consultant, CRU 195 – <i>Introduction to Maritime Operations and Culture</i> Special Consultant, CRU 300 – <i>Celestial Navigation</i> (part of Sea Training III) Watch Officer U.S.M.S., CRU 100 – <i>Sea Training I</i> Watch Officer U.S.M.S., CRU 300 – <i>Sea Training III</i>

Spring 2001 Special Consultant, DL 320 – *Introduction to Bridge Simulation*

Teaching Experience (cont.)

Fall 2000 Simulator Operator, DL 321 – *Watchstanding Simulation*
 Summer 1998 Watch Officer U.S.M.S., CRU 100 – *Sea Training I*
 Watch Officer U.S.M.S., CRU 300 – *Sea Training III*
 Summer 1997 Watch Officer, CRU 100 – *Sea Training I*
 Watch Officer, CRU 300 – *Sea Training III*
 Fall 1997 Lecturer, DL 311 – *Marine Management Lab*
 Lecturer, DL 110 – *Ship Operations I*
 Spring 1997 Lecturer, NAU 200 – *Navigation II* (plane, spherical and electronic navigation)
 Lecturer, DL 310 – *Marine Supervisory Lab*
 Lecturer, DL 111 – *Ship Operations II*
 Spring 1996 Lecturer & Training Boat Captain, DL 200 – *Shiphandling*
 Lecturer & Training Boat Captain, DL 300 – *Navigation Piloting Lab*
 Fall 1995 Lecturer & Training Boat Captain, DL 200 – *Shiphandling*
 Lecturer & Training Boat Captain, DL 300 – *Navigation Piloting Lab*
 1996 – 2001 Paid and Volunteer Tutor, NAU 410 – *U.S. Merchant Marine License Seminar* (periodically)
 Paid and Volunteer Tutor, NAU 300 – *Celestial Navigation* (periodically)

Deer Hill Ranch Experiential Learning – Lafayette, CA

Fall 2001 Led and taught children on interactive, environmental, and educational farm tours.

Leadership & Management Experience

- Accomplished leader and team player in diverse, multicultural, and interdisciplinary environments.
- U.S. Merchant Marine Officer. Excellent safety and performance record.
- Ability to identify and initiate improvements for stronger, more effective work processes and teams.
- Outstanding public speaking skills.
- Proven record of accomplishment in developing and implementing various projects, events and programs.
- Created and facilitated successful leadership training programs and retreats.
- Successfully led groups as large as 400 people in both academic and business environments.
- Budget management experience. Operated within budget while increasing program activities.
- Excellent sense of humor and ability to play well with others.

Maritime & Fishing Industry Employment Synopsis

I am an active United States Merchant Marine Officer and have sailed on containerships, oil tankers, supply vessels, and training vessels. I have also worked in the oil exploration industry on drill ships and on mobile offshore drilling units as a ballast control officer and junior dynamic positioning officer. I began my career in the commercial fishing industry and worked on a variety of commercial fishing boats, tenders, and processing vessels. In the past several years I have worked primarily on the *United States Training Ship Golden Bear* where I serve as an officer and teach and train U.S. Merchant Marine Officer Cadets in a variety of subjects including celestial navigation, vessel safety, ship operations, navigation, watchstanding, etc. Cumulatively, I have spent almost six years at sea.

Employment History

- True North Consulting Services: Vallejo, CA. Self-employed independent consultant. Feb 2000 – 2004
- California State University - Maritime Academy: Vallejo, CA
Associate Director Career Development and Industrial Relations. Oct 1999 – Feb 2000
Student Professional Development Program Coordinator. Jan 1998 – Oct 1999
Variety of teaching appointments and service as training officer. 1995 - present
- Diamond Offshore Drilling: Katy, Texas. May 96 – Jan 97
- Keystone Shipping Company: Pennsylvania. June 94 – Oct 95
- Employment in a variety of fishing industry-related jobs including fish markets, filet houses, supply boats, processing ships and commercial fishing boats. Alaska and California. 1986 – 1991

Professional Licenses & Certificates (selected)

- United States Licensed Merchant Marine Officer: Master 1600 tons
- United States Licensed Merchant Marine Officer: Second Mate Unlimited Tonnage
- United States Licensed Ballast Control Officer
- Automatic Radar Plotting Aids and Radar Observer Certificates
- Stability and Ballast Control for Mobile Offshore Drilling Units Course
- U.S. Coast Guard Basic and Advanced Shipboard Fire Fighting Certificate
- Inert Gas and Crude Oil Washing Certificate; Vapor Recovery Certificate
- Diesel Operation and Bridge Control Maneuvering Certificate
- U.S. Navy Damage Control School
- PADI Certified Open Water Diver