

Phoenix Mourning-Star

EDUCATION

Colorado State University Doctorate of Philosophy: Ecology with Chemical/Biological Engineering Diffusion of Innovations: Biofuels in Afghanistan ; 2014	Fort Collins, CO
The George Washington University Elliott School of International Affairs MA: International Science and Technology Policy; 2015 Center for International Science and Technology Policy Fellowship (2013-2015)	Washington, DC
Nonprofit Management Front Range Community College, 2011	Fort Collins, CO
University of Auckland MLS/LLM: International Environmental Law – The Environment as an International Human Right and U.S. vs. New Zealand Comparative Legislation and Policies; April 2011	Auckland, New Zealand
Colorado State University Master of Science: Public-Environmental Health Epidemiology – Health Effects of Air Pollution on Infants; 2011 Colorado State University Program for Research and Scholarly Excellence Grant/Award (2007-2008) CSU Presidential Pacesetter Award Recipient (2008-2009); Colorado Environmental Health Association Award (2008)	Fort Collins, CO
Johns Hopkins School of Public Health Graduate Institute for Public Health, Epidemiology and Biostatistics, Sept 2009	Baltimore, MD
University of Vermont Master of Science: Biostatistics - Clinical Trials/Vaccine Testing Disparities in Susceptibility; May 2007 2005-2007 University of Vermont Graduate College Fellowship	Burlington, VT
Mesa State College Bachelor of Science; Mathematics – Reviewing the Neyman-Pearson lemma in Applied Statistics; May 2005	Grand Junction, CO

NOTABLE AWARDS/ACCOMPLISHMENTS

- Service Recognition Award from U.S. Secretary of State Hillary Clinton (2011)
- Colorado State University Center for Disaster and Risk Assessment Fellow (2012)
- Northern Colorado Business Review's Community Business Leaders Under 40 Nominee (2011)
- Certificate of Achievement from U.S. Asst. Secretary of State for Public Affairs Mike Hammer (2013)
- National Science Foundation Integrative Graduate Education and Research Traineeship Fellow: Energy (2010)
- Energy and Climate Change Expedition to Antarctica with Polar Explorer Robert Swan and 2041 (2009)
- Rotary International Ambassadorial Scholar; New Zealand (2009-2010)
- Environmental Protection Agency STAR (Science to Achieve Results) Grant Recipient (2008-2010)
- National Science Foundation Alliance for Graduate Education and the Professoriate Scholar (2010)
- Duke University Global Health Policy and Governance Fellow (2008)

PROFESSIONAL SKILLS and OTHER TRAINING

- **PMI Project Management Professional Training** (Summer 2014)
 - **Federal Financial Management Training** (2015)
 - **International Academy for Disaster Relief** (9-Day Simulated Disaster Training); United Kingdom
 - **Leadership on the Edge Training** (2-week Antarctic Expedition/Training); Drake Passage/Antarctica
 - **The Grant Institute** (Workshop on Grant Writing); Burlington, VT
 - **Wilderness Medical Institute** (Wilderness Emergency Medical Technician); Yosemite, CA
 - **Santa Monica School of Massage** (Massage Therapy, 1998); Santa Monica, CA
 - **Top Secret Security Clearance:** 2010 United States Department of State, United States Government
 - **Computer Skills:** MSOffice (advanced Excel skills), eJacket, FastLane, SAS, GREET (lifecycle assessment tool), Maple, Matlab, MiniTab, STATA, DayCent, R, Project, SharePoint
 - **Languages:** Spanish (Beginner); Dari (in-country beginner)
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SCIENCE/STEM RESEARCH EXPERIENCE

STEM Education Analyst; Division on Learning in Formal and Informal Settings

National Science Foundation | May 2014 – Present

- Conducting analysis and provide reports on Division's scientific programs.
- Provide scientific input to relevant aspect of the merit review process, Committee of Visitors.
- Develop reports and data for scientific portfolio monitoring and evaluation.
- Support Agency with the development of cross-cutting solicitations
- Translating Division and Directorate funding awards to reflect Agency's impact on National STEM education.
- Located and provided information requested by staff, Division Directors and Agency Committees.

Environmental Health Epidemiology Fellow; U.S. Environmental Protection Agency | August 2008 – June 2011

- Assessed the association between sources of air pollution and heart and breathing problems in a population of infants using home monitors in Atlanta.
- The research contributed to our understanding of adverse health effects of specific sources and may add to the body of knowledge to further inform policy and regulatory standards for ambient air quality.

Environmental/Public Health Research Assistant

World Health Organization | April – October 2008

Geneva, Switzerland

- Assessed the global impact of lead (Pb) adjusting for country level increases in awareness, new epidemiologic evidence and changes in exposure to lead for the 2010 Global Burden of Disease Project.
- Developed an improved statistical adjustment for the lead exposure analysis in converting bone lead measurement to blood lead measurements.
- Convened world leaders in lead research in online and conference call collaboration.

Dengue Fever Vector Capacity Modeler;

Suchman Laboratory, Colorado State University | January 2001 – June 2008

Fort Collins, CO

- Built vector capacity and statistical models for laboratory research done on Dengue virus infected *Aedes aegypti* mosquitoes.
- The work on transgenic mosquito research in preventing the spread of dengue virus required using survival modeling and other asymptotic statistical methods.
- The research investigated and showed a reduction in life span of the mosquitoes.

Vaccine Testing Center Infectious Disease Biostatistics Research Assistant;

Fletcher-Allen Hospital | November 2006 – August 2007

Burlington, VT

- Provided in-house statistical support for staff and technicians on clinical trial projects:
 - (1) Challenge Model for *Campylobacter*;
 - (2) Deficient Serum Mannose-Binding Lectin Levels and *MBL2* Polymorphisms Increase the Risk of Single and Recurrent *Cryptosporidium* Infections in Young Children. (*The Journal of Infectious Diseases*. Vol. 200 Issue 10)
- Screened/enrolled, completed/filed patient questionnaires and explained study goals/requirements to volunteers.
- Collected patient charts and samples and assisted clinical trial technicians with patients throughout study.

POLICY EXPERIENCE

Science Policy Analyst; U.S. Dept. State | February – September 2010

Wellington, New Zealand

- Built relationships and made international level decisions in speaking to the public and various representatives of the host country by improving relations in the South Pacific region through reaching out to researchers and industry leaders across the country to gain input to guide suggestions on topics such as environment, pollution, refugees, climate change, environmental implications, ecological and health assessments through understanding cultural, economic and governmental concerns and how these play out in regional and international discussions.
- Practiced a high level of diligence, patience, attention to detail and the international political climate as well as the ability to communicate complex issues to the media, general public, local/national officials and provide Prepare a variety of analytical, descriptive and background reports, and memoranda on subjects or public policy issues in verbal and written reports directly to the Ambassador, Consul General and the chain of command while effectively differentiating between Top Secret, Classified and Sensitive information critical to U.S. national security.

Staffer to Asst. Executive Director; Center for the New Energy Economy | June 2011-Feb. 2013 Fort Collins, CO

- Supporting the logistics for marketing, networking and volunteer recruitment for former Colorado Governor Bill Ritter's think-tank the Center for the New Energy Economy..
- In-house support for input of policy resources into the Center's resource repository and databases.
- Assist in guiding the Center's mission to be campus and student friendly in event planning.

MANAGEMENT/LEADERSHIP EXPERIENCE

President/Owner; Results International Research & Consulting| November 2007 – Present | Washington, DC

- Identified market opportunities in the science policy (policy translation), policy of science (technical scientific consulting), and education (student professional development and mentoring).
- Lead, design, monitor and control client capture, satisfaction and quality assurance for all projects and products.
- Engaged in personal consultation to assist clients with of legislative issues by providing information and analysis, and by applying professional subject-area knowledge.
- Prepare a variety of analytical, descriptive and background reports, memoranda, op-eds, podcasts and written materials on subjects or public policy issues within the employee's designated areas of responsibility to support congressional decision making.
- Create, organize and negotiate project boundaries, requirements, scope and resources.
- Plan, organize, and coordinate group research efforts.
Create and oversee project charters, management plans, monitoring and evaluation, define and validate scope and develop the schedules for projects.
- Oversee daily operations in finance, marketing, public relations, research, volunteers, academic institutions and local businesses/industry.
- Identify and assess the need for travel to/from site locations domestic and international in stable as well as conflict and post-disaster regions including
 - Identifying, acquiring and maintain assets, sources, contacts for on the ground information, data and site acquisition;
 - Develop and access safety, managing risks (financial and human), alternative emergency action plans

Mtn. Region Coordinator; Campus Engagement Project/Colorado Campus Compact | June 2011 – Nov. 2011

- With the support of nationally acclaimed author Paul Loeb, provide campuses in CO, WY, NV and NM resources, grants and forums for engaging campus administrators, faculty and students in non-partisan (party neutral) voter registration and get out the vote efforts for the 2012 elections.
- Engaged in organizational fundraising, donor meetings, grant reviews and program training.
- Travel the region extensively providing national and regional policy and activity updates on organization finances, grants, recipients and inspirational speeches.
- During a 4-month period assisted in raising and distributing more than \$15,000 to campuses in four states.

MENTORING/TEACHING EXPERIENCE

Senior Analyst; Results International Research & Consulting| September 2013 – Present | Washington, DC

- Prepared authoritative, objective, and non-partisan analytical studies and descriptive and background reports on policies and programs pertaining to government, university, and industry science and technology policies, institutions, programs, and issues;
- Provided personal consultation and assistance to project teams, clients, and staff on such policies throughout the legislative process and participated in led team research projects and seminars.
- Mentored junior staff in the development of skills necessary to provide analysis and consultation to clients and non-science/non-policy team member at increasingly sophisticated levels.
- Created seminars, workshops, and/or outreach programs for clients and community members and trainings for staff.

Foreign Affairs Campus Coordinator; U.S. State Dept.| September 2010 – 2013

- Campus Recruitment Colorado State University, UC-Denver and University of Northern Colorado: Communicate the mission of the U.S. Department of State at area campuses and schools. Request, plan and organize speaking engagements for Dept. Officials and Diplomats. Assist students interested in careers in the U.S. Department of State.

Higher Education Lecturer

- *Political Science & Statistics Lecturer;* University Colorado-Denver | August 2012 – May 2013 Denver, CO
- *Statistics Lecturer;* Colorado State University | January 2013 – May 2013 Fort Collins, CO
- *Biostatistics/Epidemiology Lecturer;* Colorado State University | August 2007 – May 2008 Fort Collins, CO
- *Mathematics/Statistics Lecturer;* University of Vermont | August 2005 – May 2007 Burlington, VT

ADDITIONAL SKILLS/QUALIFICATIONS

- Demonstrated expertise and knowledge of science and technology policy
- Excellent at collaboration with others
- Grounded judgment and discretion and ability to communicate orally, in writing, recording/broadcasting and video
- An impressive private industry, governmental and non-governmental professional network
- Experience in analyzing public policy issues, write in a public policy context and plain language (Federal Plain Writing Act of 2010)
- Expert at applying scientific methods to design and utilize research and analytical methods and techniques and provide objectivity in all phases of analysis and consultation
- Thrive in a high pressure environment
- Talent for conveying complex analysis and information orally through briefings, consultations and other presentations

CONFERENCES/PRESENTATIONS/COURSES TAUGHT/PUBLICATIONS

- Conferences/Meetings/Presentations
 - September 2008 “Reporting on the World Health Organization Global Burden of Disease Report – Lead (Pb) Exposure”. Colorado Environmental Health Association Annual Conference; Steamboat, CO
 - September 27-29, 2009 “Adverse Health Effects of Source Apportioned Air Pollution on Infants Using Cardiorespiratory Monitors”. U.S. EPA STAR Fellows Conference; Washington, DC
 - October 26, 2011 Session Coordinator. Center for New Energy Economy Natural Gas Conference and Symposium; Fort Collins, CO
 - September 19-20, 2011 “Adverse Health Effects of Source Apportioned Air Pollution on Infants Using Cardiorespiratory Monitors”. U.S. EPA STAR Fellows Conference; Washington, DC
 - December 2011 – January 2012

- i. Agricultural and Energy Needs in Rural Afghanistan. Afghanistan Ministry of Agriculture, Irrigation and Livestock (MAIL); Kabul, Afghanistan.
 - ii. Potential for Alternative Bioenergy for Remote Afghan Farmers. MAIL Soil Laboratory; Kabul, Afghanistan.
- October 1-3, 2012 Planning Committee. Center for New Energy Economy Natural Gas Conference and Symposium; Fort Collins, CO
- October 12-13, 2013 “Poppy Seed Oil as an Energy Source toward Diplomacy in Rural Afghanistan”. Association for Industrial Crops; Washington, DC
- April 4-5, 2013 “Characterization of Poppy Oil as a Straight Vegetable Oil”. Colorado Center for Biorefining and Biofuels Annual Meeting and Conference; Boulder, CO
- October 29, 2015 “ISIL and Water as a Weapon” and “GEOINT as a Tool Toward Increased Collaboration Across U.S. Intelligence”. Department of Defense SMA Conference; Joint Base Andrews
- May 20, 2015 “GEONarrative Approach for NGA”. U.S. Army Corps of Engineers & National GeoSpatial Intelligence Agency Human Complexities Group.
- June 29, 2015 Briefing the Joint Chiefs of Staff’s (J2) Deputy Director for Battlespace Awareness.
- July 10, 2015 “How Whole of Government Policies can Bolster NGA’s Capabilities through Executive Order”. National GeoSpatial Intelligence Agency – InnoVision Director’s.
- Publications/ Submissions
 - Carmolli M, Duggal P, Haque R, Lindow J, Mondal D, Petri WA, Jr, **Mourning-Star P**, Larsson CJ, Sreenivasan M, Khan S, Kirkpatrick BD. “Deficient serum MBL and MBL2 polymorphisms increase the risk of single and recurrent Cryptosporidium infections in young children”. Journal of Infectious Diseases 2009 Nov 15;200(10):1540-7.
 - **Mourning-Star P**, and Reardon, KF. “Lifecycle Assessment of Producing and Using Poppy Oil for Renewable Energy in Rural Afghanistan” International Journal of Life Cycle Assessment (submitted April, 2015).
 - **Mourning-Star P**, and Reardon, KF. “Properties of Poppy Oil as a Renewable Energy Fuel in Rural Afghanistan”. Bioresource Technologies (submitted April, 2015).
- Publications in Process
 - Water and National Security. Editor Laura Jean Palmer-Moloney. Expected Publication June 2017.
 - i. Chapters:
 1. Climate Change Drivers Case Study: Brazil (Rainforest, Agriculture, Dams, Sao Paulo).
 2. Water and National Security – Watershed Scale Human and Natural Systems Impacts: Amu Darya Basin.
 3. Water and National Security – Nile, Ethiopia & GERD.
 4. Extreme Weather and Human Security: Adapt, Mitigate or Die.
 5. Water and Conflict: Micronesia.
 6. Water and Conflict: United Kingdom.
 - Armed Conflict and the Environment. Editors: Peter Chirico & Laura Jean Palmer-Moloney. Lead author: Laura Jean Palmer-Moloney. Expected Publication August 2016.
 - i. Chapters:
 1. Counter-Insurgency/Counter-Terrorism/Violent Extremism: 1990s-2014:
 - a. Bolivia: Water Wars and Land Ownership.
 - b. Israel and Palestine: Olive Grove Destruction, Groundwater and Salinization.
 - c. Operation Iraqi Freedom (OIF).
 - d. Mosul.
 2. Ethnic, Religious State-on-State and Civil Conflict: 1970s-1990s:
 - a. Southeast Asia – Laos.
 - b. Rwanda.
 - c. Ecuador.
 3. Capitalism vs. Communism: 1950s-1990s:
 - a. Nicaragua: Sandinista Revolution.

- b. Guatemala: Coup d'état and Bananas Republics.
 - c. Caribbean: Cuban Revolution.
 - d. South America: Chile's d'état and Pinochet.
- Media Interviewees of Note
 - Dr. Marcus King (The Climate Center). *Water Security*. November 2014.
 - Director William Davis (United Nations Development Program; DC Office). *UN MDG's*. March 2013.
- Courses Taught
 - University of Colorado, Denver
 - i. Department of Political Science; Fall 2012 – Global Ecological Crises.
 - ii. Department of Mathematics and Statistics; Spring 2013 – Introduction to Statistics. (two sessions: one traditional; one online).
 - Colorado State University
 - i. Department of Statistics; Spring 2013 – Statistics for Science Majors.
 - ii. Institute for Teaching and Learning; Fall 2010-Spring 2012 – Critical Thinking.
 - iii. Department of Environmental/Radiological Health Sciences; Fall 2008 – Biostatistics.
 - iv. Department of Environmental/Radiological Health Sciences; Spring 2009 – Introduction to Epidemiology.
 - University of Vermont
 - i. Department of Mathematics and Statistics; Fall 2005-Spring 2007 – Introduction to Statistics.
 - ii. Department of Mathematics and Statistics; Fall 2005-Spring 2007 – Calculus I.