

Curriculum Vitae

Moira A. Hough

2601 Croyden St
Tucson AZ 85716, USA
Cell: +1-914-310-7319
E-mail: houghm@email.arizona.edu

Research Interests

I am primarily interested in the role of organisms in driving biogeochemical processes, particularly under the influences of climate and land-use changes. I am especially interested in interactions between systems such as across terrestrial/wetland/aquatic interfaces and above-ground below-ground linkages.

Key systems of interest: wetlands, polar & alpine ecosystems

Key concepts: Ecological response to climate change, biogeochemistry, social-ecological systems

I also have a strong interest in science outreach and education particularly at the primary school level, and in cross-disciplinary collaboration.

Education

- MSc predicted 2013 **University of Arizona**, Tucson AZ
School Natural Resources and the Environment
Department of Watershed Management and Ecohydrology
GPA 4.0
- BA 2009 **Carleton College**, Northfield MN
Major: Biology
Minor: Environment & Technology Studies
GPA 3.7, Magna Cum Laude

Research and Professional Experience

- 2011-present **Graduate Research Assistant**, Biosphere 2: Tucson AZ
NSF Coupled Natural and Human Systems Project: “Strengthening Resilience of Arid Region Riparian Corridors”
- 2010-2011 **Seasonal Naturalist**, Long Lake Conservation Center: Palisade, MN.
Teaching visiting groups of students in grades 5-7 about conservation, ecology, and environmental principles
- 2010 **Field Assistant**, University of Alaska, Fairbanks: Craig, AK
Studied impacts of logging on habitat use and fawn mortality using capture and radio tracking of fawns and adult female Sitka Black-Tailed Deer.
- 2009-2010 **Environmental Scientist**, TRC Environmental: Lowell, MA
Wetland delineation, protected habitat surveys, project permitting, and environmental compliance assessments.
- 2009 **Student Researcher**, The Polaris Project: Cherskiy, Russia.
Impacts of climate change on carbon and nutrient cycling in the Kolyma River watershed. Public outreach on climate change.
- 2009 **Teaching Assistant**: Ecosystems Ecology, Carleton College.
Prepared lab and led groups of students on sampling trips.
- 2008 **Student Researcher**, La Selva Biological Station, Costa Rica
Studied scent attraction in Euglossine bees and response to disturbance in Nasutitermes termites.

- 2008 **Student Researcher (REU)**, McKnight Lab: U of Colorado, Boulder.
Alpine lake biogeochemistry. Stream biogeochemistry and invertebrate
community structure.
- 2007 **Intern**, WWF: Fandriana, Madagascar
Assessed anthropogenic pressures on crayfish populations. Community outreach.
- 2006 **Farm Hand**, Stone Barns Center for Food & Ag: Pocantico Hills, NY
Managed and maintained enclosures for free-range livestock.

Outreach & Service

- 2012 **Catalina Foothills High School: Outreach**
Mentored students in development of “Environmental Inquiry” projects based on
current environmental research
- 2012 **Natural Resources Graduate Student Organization: Co-chair**
Graduate student-faculty liaison and representative
- 2012 **Travel Grant Review: Reviewed proposals for the Graduate and Professional Student
Council travel grant**
- 2011 **Biosphere 2: Science Interpretation**
Designed and developed interpretive materials for a public outreach exhibit based
on current research in the Landscape Evolution Observatory
- 2009 **Student Departmental Advisor: Carleton College.**
Advisor to current and potential Biology majors.
- 2005-2009 **Kids for Conservation Teacher: Northfield, Minnesota.**
Taught principles of conservation to second through fifth graders.
- 2007 **Canoe Trip Leader: Carleton College.**
Four day freshman orientation trips in Boundary Waters Wilderness Area.
- 2004 **SCA Trail Crew: Guadalupe Mountains National Park, Texas**
Built stone steps, retaining walls, water bars to maintain mountain trails.

Awards & Scholarships

- 2005-2009 National Merit Scholarship

Languages

English, native
French, very good spoken, good written
Spanish, fair spoken and written

Skills

Certifications: CPR, Wilderness First Aid
Software: Excel, Word, PowerPoint, S-plus, SPSS, ArcGIS, R
Sampling & Analysis: Soil, water, leaf chemistry, GPS, Radio telemetry, some survey experience
Field identification: Ornithology, Entomology (aquatic and terrestrial)
Outdoor Experience: Extensive experience hiking, canoeing, backpacking, some climbing experience

Reports & Presentations

Hough, M., J. Stromberg, C.A. Scott, B. Enquist, M. Pavao Zuckerman. 2012. Functional traits as predictors of resilience for riparian ecosystem processes and services,” (Poster) *Ecosystem Services Partnership Conference*, Portland, OR, July 31- August 4, 2012.

- Hough, M., D. Chan, C.A. Scott, M. Pavao Zuckerman. 2012. "Ecosystem Services as Tools to Assess Social-Ecological Resilience in Arid Riparian Corridors," (Poster) *Adaptation Futures Conference* Tucson, AZ, May 29-31, 2012.
- Hough, M., K.E. Frey, W. Sobczak, A. Bunn, E.B. Bulygina, S. Chandra, S. Davydov, R.M. Holmes, J. Schade, V. Spektor, & S. Zimov (2010). "Potential impacts of permafrost degradation on carbon storage of peat soils in the Kolyma River basin, East Siberia." (Poster). *State of the Arctic Conference*, Miami FL, 2010.
- Hough, Moira (2009). Plant-mediated effects of anthropogenic nitrogen deposition on carbon accumulation in peatlands. Undergraduate Thesis: Biology. Carleton College.
- Hough, Moira (2009). Ecological Modeling in the Cannon River Watershed. Undergraduate Thesis: Environment & Technology Studies. Carleton College.
- Hough, Moira (2009). Nest spatial distribution and gallery repair rate in the neotropical arboreal termite *Nasutitermes corniger*. Tropical Rainforest Ecology: Carleton College.
- Hough, Moira, Kate Malecek, Jessie Martinez, Cam McDonald-Hyman, Mikaela Robertson (2009). The role of scent composition and complexity in attracting euglossine bees. Tropical Rainforest Ecology: Carleton College.
- Hough, Moira (2008). Impacts of DOM on aquatic macroinvertebrate communities (*Oral*). University of Colorado, Boulder Mountain Research Station.
- Hough, Moira, Marjolein Kamermans (2007). Pilot study of the market pressures of crayfish in the commune of Miarinavaratra. Internal Report: WWF Madagascar.