

Department of Earth Science, Montana State University
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EDUCATION

University of Colorado, Boulder

Ph.D., History, 2004

Dissertation: A Ranchland Genealogy: Land, Livestock and Community in the Upper Yellowstone Valley, 1866 - 2004. Supervisors: Patricia Nelson Limerick (History), William R. Travis (Geography)

Colorado College, Colorado Springs, CO

B.A. Liberal Arts and Sciences (Nonfiction Writing with an Emphasis in Ecology), 1994

*Thesis: Quietly Comes the Catamount: the Extirpation and Re-population of *Felis concolor* in northern New England.*

International Honors Program in Global Ecology

Academic year abroad in England, India, Thailand, Malaysia, New Zealand, Fiji, and Mexico, AY 1992-1993.

ACADEMIC & PROFESSIONAL APPOINTMENTS

2013 – present | Assistant Professor of Geography, Department of Earth Sciences, Montana State University.

2013 – present | Faculty Fellow, Montana Institute on Ecosystems, Montana State University.

2007 – 2013 | Policy Analyst, Headwaters Economics, Bozeman, MT.

2005 – 2007 | Post-Doctoral Fellow, Centre for the Study of Agriculture, Food and the Environment, University of Otago, New Zealand. Supervisors: Dr. Hugh Campbell (Sociology), Dr. Henrik Moller (Zoology), Dr. Thomas Brooking (History)

TEACHING & RESEARCH TRAINING EXPERIENCE

2002-2005 | Research Assistant, Department of Geography, University of Colorado-Boulder

Project: Complexity Across Boundaries Coupled Human and Natural Systems in the Yellowstone Northern Elk Winter Range (NSF GRANT#CNH0216588). *Supervisor:* Dr. William R. Travis

1999-2002 | Research Assistant, Center of the American West, University of Colorado-Boulder

Projects: Ranchland Dynamics; Western Futures: Tracking the Changing West; “Justice for All” Environmental Justice Curriculum Guide. *Supervisors:* Dr. William R. Travis, Dr. Patricia N. Limerick

2000-2004 | Graduate Teaching Assistant, Department of History and Center of the American West, University of Colorado-Boulder

1995 | Field Assistant, University of Nevada at Reno

Study: Ecology and Population Dynamics of the Mexican Spotted Owl in New Mexico. *Supervisor:* Dr. Peter Stacey

1995 | Laboratory Assistant, Laboratory of Neurophysiology, Harvard Medical School

Supervisors: Dr. James Quatrocci and Dr. Robert Stickgold

FUNDING – External awards

2016-2020 | National Science Foundation EPSCoR, \$6,000,000 (MSU Share \$2,000,000)

Role: Co-Investigator. *Project:* WAFER-x (Water, Agriculture, Food & Energy nexus Research). *Co-Directors:* Benjamin Poulter, NASA and Paul Stoy, MSU.

2016-2018 | US Geological Survey \$66,450

Role: Director. *Project:* Social Dimensions of Private Land Use & Elk Winter Range.

2015-2016 | World Wildlife Foundation \$52,639

Role: Director. *Project:* Ranch Ownership and Management Trends in the Northern Great Plains.

2015-2018 | National Science Foundation Social, Behavioral and Economic Sciences \$282,723 (MSU Share \$38,000)

Role: Co-Director. *Project:* Research Coordination Network: Fostering Cross-Disciplinary Research on Energy Development (energyimpacts.org). *Co-Director:* Jeffrey Jacquet, South Dakota State University.

2015-2017 | USDA National Institute of Food and Agriculture \$474,190

Role: Project Director. *Project:* Escaping the Resource Curse: Developing Governance and Investment Frameworks to Leverage the Benefits of Energy Development for Rural Sustainability. *Co-Project Directors:* Timothy W. Kelsey (Pennsylvania State University), Paul R. Lachapelle (Montana State University), Roger H. Coupal (University of Wyoming), David L. Kay (Cornell University).

2015 | Mountain SEON Research Coordination Network, University of Idaho \$12,500

Role: Working Group Director. *Project:* Buffalo Restoration as Resilience

FUNDING – Internal awards

2017 | Montana State University Outreach and Engagement Grant, \$5,000

Role: PI. *Project:* Prairie Communities in Action.

2017 | Montana Institute on Ecosystems/MT EPSCoR \$16,000

Role: PI with Elizabeth Rink (Montana State University). *Project:* Socioecological Systems Research

2016 | Montana Institute on Ecosystems/MT EPSCoR \$39,000

Role: PI with Elizabeth Rink (Montana State University) and Brady Allred (Univ. of Montana). *Project:* Socioecological Systems Research

2015 | Montana State University Vice-President for Research \$123,000

Role: Co-PI. *Project:* Human Ecology Learning and Problem Solving (HELPS) Lab. PI: Dr. Eric Raile.

2014 | Montana State University Faculty Center for Excellence \$1,500

Role: Project Leader. Crowd Sourcing Migration Data, Instruction Innovation Grant.

2006 | University of Otago Research Grant NZ\$22,000

FUNDING – Student awards

University Government of Graduate Students Travel Grant, 2004

Charles Redd Center Summer Award, 1999 and 2000

Bean Grant for Western History Research, CU-Boulder, 1999 and 2002

COURSES TAUGHT

GPHY 326 Geography of Energy Resources (Montana State University) (Spring 2015, 2016, 2017)

GPHY 121D Human Geography (Montana State University, Fall 2013, 2014, 2016)

GPHY 445/545 Advanced Regional Geography (Montana State University, Fall 2014, Spring 2016)
 GPHY 591 Graduate Seminar: Resource Geography (Montana State University, Fall 2015)
 ESCI 102CS Montana Energy Systems (Montana State University, Spring 2016)
 ESCI 102CS Public Lands and Climate Change (Montana State University, Fall 2015)
 ANTH 414: Ideological Forces in Society: Animals and Society (Terms 1 & 2, 2006)
 CAMW 2001 The American West (University of Colorado at Boulder, fall 2000 & 2001)

PUBLICATIONS

In Prep

Haggerty, J.H. and Auger, M. "A New Framework for Evaluating Conservation Interventions in Working Grasslands: the Life Cycle Approach." *Conservation & Society*.

In Review

Haggerty, J.H., Epstein, K., Stone, M. "Land Use Diversification & Intensification on Elk Winter Range in the Greater Yellowstone Ecosystem." Research Note, *Rangeland Ecology and Monitoring*.

Rink, E., McAnally, R., Smith, R., Bird, E. A. R., Hallum-Montes, R., Haggerty, J. The Impact of Buffalo Restoration on the Psychological Well Being of the Fort Peck Tribes. *Journal of Transcultural Psychology* (submitted 5-16).

Smith, K. K. & J. H. Haggerty, "Governance Responses to the Bakken Boom as Infrastructure Boom: A Regional Landowner Organization Example." Submitted 10-7-16 to Whitton, Cotton & Brasier, eds. *Governing Shale Gas*.

Bills, K. & J. H. Haggerty, "Governing Unconventional Legacies: Lessons from the Coalbed Methane Boom in Wyoming." Submitted 10-7-16 to Whitton, Cotton & Brasier, eds. *Governing Shale Gas*.

Jacquet, J. B., Witt, K., Rifkin, W., Haggerty, J.H. "A complex adaptive system or just a tangled mess? Property rights and shale gas governance in Australia and the US." Submitted 11-7-16 to Whitton, Cotton & Brasier, eds. *Governing Shale Gas*.

BOOK CHAPTERS

Forthcoming. J.H. Haggerty. "A horse that has left the barn: expanding geographies of natural gas." In *Handbook of Energy Geographies*. B. Solomon and K. Calvert, eds. Edward Elgar Press.

2015. Haggerty M.N. and J.H. Haggerty. "Energy Development as Opportunity and Challenge in the Rural West." In *The Rural West: Common Regional Issues*. D. Danbom, ed. University of Utah Press, 161-190.

JOURNAL ARTICLES

Forthcoming. Haggerty, J. H., Smith, K. K., Mastel, T., Assessing, Monitoring, and Mitigation Energy Boomtown Impacts in the U.S.: Evaluating a Public Health Model. *Impact Assessment and Project Appraisal*. Resubmitted 4/17.

Forthcoming. Haggerty, J. H., E. L. Rink, R. McAnally and E. Bird, "Restoration and the Affective Ecologies of Healing: Buffalo & the Fort Peck Tribes." *Conservation & Society* (Accepted 3/17).

2016. Smith, R., McAnally, R., Red Elk, L. Bird, E. Rink, E., Jorgensen, D., Haggerty, J. H. Fort Peck Buffalo Project – A Case Study. *Tribal College & University Research Journal* 1(2): 1-29.

2016. Haggerty, J.H., McBride, K. "Does local monitoring empower fracking host communities? A case study from the gas fields of Wyoming." *Journal of Rural Studies* 43 (Feb. 2016): 235-247.

2015. Allred, B. W., W. K. Smith, D. Tidwell, J. H. Haggerty, S. W. Running, D. E. Naugle, S. D. Fuhlendorf, "Ecosystem Services lost to oil and gas in North America." *Science* 348 (6233): 401-402. Apr. 23, 2015. DOI:10.1126/science.aaa4785
2014. Haggerty, J.H., Gude, P. H., Delorey, M., Rasker, R. 2014. Long-term effects of income specialization in oil and gas extraction: the U.S. West, 1980–2011, *Energy Economics* (2014), DOI: 10.1016/j.eneco.2014.06.020.
2014. Haggerty, J.H., Haggerty, M. N., Rasker, R., Gude, P. [County Economic Development at a Glance: A Single Measure of Opportunity](#). *Western Economics Forum* XIII:1, Spring 2014.
2014. Haggerty, J.H., Haggerty, M. N., Rasker, R. [Uneven Local Benefits of Renewable Energy in the U.S. West: Property Tax Policy Effects](#). *Western Economics Forum* XIII:1, Spring 2014.
2012. Gude, P.H., R. Rasker, K.L. Jones, J.H. Haggerty, M.C. Greenwood. 2012. The Recession and the New Economy of the West: The Familiar Boom and Bust Cycle? *Growth and Change* 43(3): 419-441.
2009. Haggerty, J. H. and H. Campbell, "Keeping the stress off the sheep?: neoliberalism, animal bodies, and 'good' pastoral farming in New Zealand." *Geoforum* 40: 767-777.
2008. Moller, H., C. MacLeod, J. Haggerty, C. Rosin, G. Blackwell, C. Perley, S. Meadows, F. Weller and M. Gradwohl, "Intensification of New Zealand agriculture: Implications for biodiversity," *New Zealand Journal of Agricultural Research*, 51:3, 253-263, DOI: [10.1080/00288230809510453](https://doi.org/10.1080/00288230809510453)
2007. J. H. Haggerty, "'I'm not a greenie but...': Environmentalism, eco-populism and governance in New Zealand, Experiences from the Southland whitebait fishery." *Journal of Rural Studies* 23: 222-237.
2007. H. Gosnell, J. H. Haggerty, and P. Byorth, "Ranch Ownership Change and Water Resource Management in Southwestern Montana: Implications for Fisheries" *Journal of the American Water Resources Association* 43(4): 990-1003.
2006. J. H. Haggerty and W. R. Travis, "Out of Administrative Control: Absentee Owners, Resident Elk and the Shifting Nature of Wildlife Management in Southwestern Montana." *Geoforum* 37: 816-830.
2006. H. Gosnell, J. H. Haggerty, and W. R. Travis. "Ranchland Ownership Change in the Greater Yellowstone Ecosystem, 1990 - 2001: Implications for Conservation." *Society and Natural Resources* 19:743-758.

SHORTER WORKS & REVIEWS

2015. Haggerty, J. H. Rev. of "America's Public Lands: From Yellowstone to Smokey Bear to Beyond" by Randall K. Wilson. *The AAG Review of Books*. Issue 3(4).
2008. J. H. Haggerty and H. Campbell. "Farming and the Environment" *Te Ara, The Encyclopedia of New Zealand* (www.TeAra.govt.nz)
2008. H. Campbell and J. H. Haggerty. "Kiwifruit" *Te Ara, The Encyclopedia of New Zealand*, (www.TeAra.govt.nz)

WHITE PAPERS & REPORTS

Lead author:

2014. J. H. Haggerty and Keegan McBride. "Navigating beyond the resource curse: Do local monitoring programs empower fracking host communities?" 33 pp. Headwaters Economics, Bozeman, MT
http://headwaterseconomics.org/wphw/wp-content/uploads/Energy_Monitoring_SubletteCounty.pdf

2012. Haggerty, M.N. and J. H. Haggerty, “Improving Fiscal Policy to Maximize Benefits of Unconventional Oil Development in Montana Communities.” Invited submission, *Montana Policy Review* 16:2.
2012. Headwaters Economics and Sonoran Institute. “Evaluating Purpose and Need for the Proposed SunZia Transmission Line: A Guide for Decision Makers and Stakeholders.” 40 pp. Headwaters Economics, Bozeman, MT.
2012. Headwaters Economics, “Tax Revenue from an Installed High Voltage Transmission Line: A Guide to Fiscal Impact Analysis in Montana and Idaho.” Headwaters Economics, Bozeman, MT. 28 pp. (http://www.mstireviewproject.org/TAX%20REVENUE_6.pdf)
2012. Headwaters Economics, “Transmission Lines & Property Value Impacts: A Review of Proposed Research on Property Value Impacts from High Voltage Transmission Lines.” Headwaters Economics, Bozeman, MT. 33 pp. (http://www.mstireviewproject.org/PROPERTY%20VALUE_9.pdf)
2012. Headwaters Economics, “MSTI Questions & Answers: Economic and Policy Analysis Related to the Proposed Mountain States Transmission Intertie.” Headwaters Economics, Bozeman, MT. 28 pp. (http://www.mstireviewproject.org/PROPERTY%20VALUE_9.pdf)
2012. Headwaters Economics, “Green Jobs Metrics: A Guide to Efforts to Quantify the Green Economy.” Headwaters Economics, Bozeman, MT. 24 pp. (<http://headwaterseconomics.org/energy/clean/green-jobs-metrics/>)
2011. Headwaters Economics, “Fossil Fuel Extraction and Western Economies.” Headwaters Economics, Bozeman, MT. 102 pp. (http://headwaterseconomics.org/wphw/wp-content/uploads/Fossilfuel_West_Report.pdf)
2011. Headwaters Economics, “The Agricultural Economy and Public Lands Ranching Strategies in Southern Utah.” Headwaters Economics, Bozeman, MT. 38 pp. (http://headwaterseconomics.org/wphw/wp-content/uploads/AgEconomy_PublicLands_SouthernUtah.pdf)
2010. Headwaters Economics, “Clean Energy Leadership in the Rockies: Competitive Positioning the Emerging Green Economy.” Headwaters Economics, Bozeman, MT. 86 pp. (<http://headwaterseconomics.org/energy/clean/clean-energy-report/>)
2010. Headwaters Economics, “Oil Shale in the West: 14 Unanswered Questions” Headwaters Economics, Bozeman, MT. 32 pp. (http://headwaterseconomics.org/pubs/energy/14Questions_2010.pdf)
2009. Headwaters Economics, “Impacts of Energy Development in Colorado, with a Case Study of Mesa and Garfield Counties.” *Energy in the West* series. Headwaters Economics, Bozeman, MT. 99 pp. (<http://headwaterseconomics.org/pubs/energy/HeadwatersEconomicsImpactsofEnergyCO.pdf>)
2009. Headwaters Economics, “Impacts of Energy Development in Wyoming, with a Case Study of Sweetwater County” *Energy in the West* series. Headwaters Economics, Bozeman, MT. 62 pp. (<http://headwaterseconomics.org/pubs/energy/HeadwatersEconomicsImpactsEnergyWY.pdf>)
2008. Headwaters Economics, “Land Ownership Change and the Ranching Economy in the Okanogan Valley and Eastern Okanogan County, Washington.” Headwaters Economics, Bozeman, MT. 33 pp. (http://headwaterseconomics.org/wphw/wp-content/uploads/HeadwatersEconomics_OkanoganLandStudy.pdf)
2003. J.H. Haggerty, H. Gosnell, T. Dickinson, Geneva Mixon and W.R. Travis: “Summary Report: Ranchland Dynamics in the Greater Yellowstone Ecosystem.” Center of the American West, University of Colorado, Boulder. 42 pp. plus maps.

2003. J.H. Haggerty, H.G. Schneider, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Madison County, Montana." Center of the American West, University of Colorado, Boulder. 38p pp. plus maps.
2003. J.H. Haggerty, H.G. Schneider, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Beaverhead County, Montana." Center of the American West, University of Colorado, Boulder. 30p pp. plus maps.
2003. J.H. Haggerty, H.G. Schneider, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Park County, Montana." Center of the American West, University of Colorado, Boulder. 31p pp. plus maps.
2002. J.H. Haggerty, H.G. Schneider, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Fremont County, Wyoming." Center of the American West, University of Colorado, Boulder. 26 pp. plus maps.
- Co-author:**
2016. T. Mastel, K. Smith, J. H. Haggerty, P. Lachapelle, K. B. Walsh. "Communities in Action Program Evaluation: Report to Richland County Department of Public Health." Resources & Communities Research Group, Montana State Univ.
2016. Auger, M. and J. H. Haggerty. "
2015. M. N. Haggerty and J. H. Haggerty. An Assessment of U.S. Federal Coal Royalties: Current Royalty Structure, Effective Royalty Rates, and Reform Options. Headwaters Economics, Bozeman, MT. 42 pp. <http://headwaterseconomics.org/energy/coal-royalty-valuation>
2012. Headwaters Economics, Implementing Climate Change Adaptation: Lessons Learned From Ten Examples. Headwaters Economics, Bozeman, MT. 59 pp. (http://headwaterseconomics.org/wphw/wp-content/uploads/Climate_Adaptation_Lessons_Learned.pdf)
2003. H.G. Schneider, J.H. Haggerty, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Sweet Grass County, Montana." Center of the American West, University of Colorado, Boulder. 33p pp. plus maps.
2003. H.G. Schneider, J.H. Haggerty, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Park County, Wyoming." Center of the American West, University of Colorado, Boulder. 35p pp. plus maps.
2002. H.G. Schneider, J.H. Haggerty, T. Dickinson, Geneva Mixon and W.R. Travis: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Sublette County, Wyoming." Center of the American West, University of Colorado, Boulder. 25 pp. plus maps.
2002. W.R Travis, J.H. Haggerty, H.G. Schneider, and T. Dickinson: "Ranchland Dynamics in the Greater Yellowstone Ecosystem: Lincoln County, Wyoming." Center of the American West, University of Colorado, Boulder. 25 pp. plus maps.

SELECT INVITED PRESENTATIONS

Invited Panelist, Asia-Montana Energy Summit Expert Conference. University of Montana, Mike & Maureen Mansfield Center (Missoula, Montana, April 2015).

Invited Speaker, White House Office of Science and Technology Policy, “Resilient People at the Intersection of Climate, Culture and Community: Mental Health and Wellness Impacts.” (Washington, D.C., April 2015).

Invited Panelist, Montana State University Extension, Panel on Effects of High Voltage Transmission Lines on Real Estate Values (Bozeman, Montana, May, 2012)

Invited Speaker, Burton K. Wheeler Center (Montana State University). Presented findings on land ownership change and elk management to legislators and public audience at annual forum on public policy (Helena, Montana, May, 2004)

Invited Speaker, Greater Yellowstone Coordinating Committee. Briefed the heads of National Forests, National Parks, and other public lands managers throughout the Greater Yellowstone Area on contemporary private land tenure patterns (Jackson, WY, April, 2004)

Invited Speaker, The Nature Conservancy. Presented research on ranchland ownership change to Boards of Trustees from Wyoming, Idaho, and Montana Chapters (Jackson, WY, September, 2003)

CONFERENCE PRESENTATIONS

Last updated 2015

“Restoration as Resilience: Buffalo and the Fort Peck Tribes” Mountain Social Ecological Network (MtnSEON) Annual Meeting (Missoula, MT, October 2015)

“Who Owns Montana? Amenity Migration, Control of Natural Capital and Property Politics” American Association of Geographers (Chicago, IL, April, 2015)

“Peripheralism and the Dilemmas of Hosting Energy Development: Examples from the Energy Colonies of the U.S. West” American Association of Geographers (Tampa, FL, April, 2014)

“Fiscal and Economic Information Needs in Transmission Siting: The MSTI Case Study.” 2011 Western Energy Policy Research Conference (Boise, ID, August, 2011)

“Environmentality and Environmental Governance in New Zealand.” International Geography Union Conference (Brisbane, Australia, July 2006)

“Who Speaks for the Whitebait?: Assessing emerging local institutions in wildlife management in New Zealand.” American Association of Geographers (Chicago, IL, March, 2006)

“Out of Administrative Control: How Absentee Owners and Resident Elk Have Shifted the Terrain of Wildlife Management in Southwest Montana.” American Association of Geographers (Denver, CO, April, 2005)

“Making Horse Power Work: The Petroleum Revolution on Mountain Valley Ranches.” American Association of Environmental History Annual Meeting (Houston, TX, March, 2005)

“Land Tenure, Land Use, and the Northern Yellowstone Elk Winter Range.” (Poster) American Society for Environmental History Annual Meeting (Victoria, BC, April 2004)

“Ranchland Dynamics in the Greater Yellowstone Ecosystem.” Society for Range Management Annual Meeting (Salt Lake City, UT, January, 2004)

“Ranch Landscapes of the Greater Yellowstone Ecosystem: Then and Now,” Yellowstone National Park Biennial Science Conference (Mammoth, WY, October, 2003)

“Conserving Ranchlands: Using Environmental History to Shape Conservation Strategies in the Greater Yellowstone Ecosystem,” American Society for Environmental History Annual Meeting (Providence, RI, March, 2003)

“Mapping Ranchland Dynamics: the Family Landscape in Sublette County, WY.” (Poster) American Society for Environmental History Annual Meeting (Denver, CO, March, 2002)

Paper, “Craig Remembers: Nature and the Defeat of Community on Colorado's High Plateau,” American Heritage Center Annual Symposium (Laramie, WY, September, 2000)

CAMPUS PRESENTATIONS

Seminar, Montana Institute on Ecosystems, Rough Cut Series, Socioecological Dimensions of Montana's Amenity Economy (MSU Bozeman, December 2014)

Seminar, Earth Sciences Department Series (MSU Bozeman, October 2014)

AWARDS

INSIGHT Into Diversity **2015 Inspiring Women in Stem** Award

Nominee, 2005 Dissertation Award, Graduate Committee in the Arts & Humanities, University of Colorado-Boulder
Dean's List, Colorado College, 1991, 1992, 1994

Francis Dorwin Dugan Memorial Prize for Excellence in History, 1990

STUDENT SUPERVISION

Graduate Student Supervision:

Alex Leone, MSc Geography (2015)
Carl Hamming, MSc Geography (2016)
Kathryn Bills, PhD Geography (enrolled Fall 2015)
Kristin Smith, PhD Geography (enrolled January 2016)
Kathleen Epstein, PhD Geography (enrolled Fall 2016)
Michael Stone, MSc Geography (enrolled Fall 2016)
Kelli Roemer, PhD Geography (enrolled Fall 2017)

Committee service at MSU:

Thomas Bass, PhD Land Resources and Environmental Sciences
Badamgarav Dovchin, PhD Land Resources and Environmental Sciences
Jennifer Dunn, PhD History
Dionne Zoanni, MSc Earth Sciences-Geography
Nicholas Bergmann, PhD Earth Sciences-Geography
Linnea Sando, PhD Earth Sciences-Geography
Robert Briwa, PhD Earth Sciences-Geography
Megan Moore, MSc Earth Sciences-Geography

Undergraduate Supervision:

Angela McKenzie (B.A. Hons., Anthropology, 2006, co-supervised with Hugh Campbell)
Hazel Fowler (B.A. Hons., 2007, Consumer Food Science)

MEMBERSHIPS & AFFILIATIONS

American Association of Geographers—Energy and Environment and Cultural and Political Ecology Specialty Groups
International Association for Impact Assessment

SERVICE TO PROFESSIONAL AND CAMPUS COMMUNITY

Member, National Academies of Sciences Roundtable on Unconventional Hydrocarbons, 2015-2018.

Co-chair, Workshop: *Evolving Technologies for Onshore Unconventional Development of Hydrocarbons and Related Environmental and Safety Issues*. National Academies of Sciences Roundtable on Unconventional Hydrocarbons, Dec 1-2, 2016.

Panel organizer, AAG 2016

Panel Review, USDA NIFA (2014, 2016)

Ad-hoc panel review, National Science Foundation (2014)

Occasional reviewer, *Energy Economics, Energy Policy, Geoforum, Society and Natural Resources, Rural Sociology, Conservation and Society*

Invited presenter and co-organizer, Bakken Researchers Convening at Dickinson State University, May 2015

Search Committee member, Environmental Economist Search Committee, Spring 2014

Convener, Sustainable Agriculture Colloquium Series (Univ. of Otago), 2005-2007