Brendan Fisher

Environmental Program Rubenstein School of Environment and Natural Resources 312G Aiken Center, 81 Carrigan Drive University of Vermont, Burlington VT, 05405 phone: 802-656-0351 email: bfisher@uvm.edu web: http://www.uvm.edu/rsenr/bfisher/

I. ACADEMIC AND PROFESSIONAL APPOINTMENTS

2015-	Associate Professor, Rubenstein School of Environment and Natural
	Resources, University of Vermont, Burlington VT
2014-2015	Research Associate Professor, Rubenstein School of Environment and Natural
	Resources and Gund Institute, University of Vermont, Burlington VT
2011-2014	Senior Program Officer/Ecosystem Services Lead – Conservation Science
	Program, World Wildlife Fund, Washington DC
2009-2011	Postdoctoral Fellow, Woodrow Wilson School of Public and International
	Affairs, Princeton University, Princeton NJ, USA
2006-2009	Senior Researcher, Centre for Social and Economic Research on the Global
	Environment (CSERGE), University of East Anglia, Norwich, UK
2002-2006	Graduate Research Assistant, Gund Institute for Ecological Economics,
	University of Vermont, Burlington, VT, USA
2002	Engineer, Vertex Engineering Services Inc., Denver, CO, USA

II. EDUCATION

2006	PhD Natural Resources, University of Vermont, VT, USA
2001	MSc Environmental Change and Management, Oxford University, Oxford, UK
1998	BSc Civil Engineering (Cum Laude), Bucknell University, Lewisburg, PA, USA

III. APPOINTMENTS AND PROFESSIONAL SERVICE

2016 -	Editorial Board – Conservation Letters (peer-reviewed journal ranked 2 of 48
	journals in Biodiversity Conservation; Impact Factor 7.13)
2015 -	Honorary Fellow – Land, Environment, Economics and Policy Institute,
	Exeter University, Exeter, UK
2015 -	Science Fellow - World Wildlife Fund, Washington DC, USA
2015 -	Faculty Leadership Team – Master of Science in Leadership for Sustainability,
	University of Vermont
2012 -	Fellow - Gund Institute for Ecological Economics, University of Vermont,
	Burlington Vermont
2013-2016	Editorial Board - Global Environmental Change (peer-reviewed journal one of
	top journals in Environmental Sciences; Impact Factor 5.68)
2012-	Editorial Board - Frontiers in Ecology and the Environment (peer-reviewed
	journal ranked 3 of 225 journals in Environmental Sciences; Impact Factor
	8.5)

2012-	Editorial Board – <i>Oryx</i> : The International Journal of Conservation (peer- reviewed journal ranked 14 of 48 journals in Biodiversity Conservation;
	Impact Factor 2.05)
2012-	Advisory Board – Environmental Policy Program, Champlain College,
	Burlington Vermont
2008-2011	Advisory Board – UK's National Ecosystem Services Assessment (the
	outcome of this work was published in Science in 2013)
2004-2006	Commentator – Vermont Public Radio

IV. FELLOWSHIPS AND AWARDS

Teaching, Research, Service Merit – Rubenstein School of Environment and Natural
Resources, UVM, 2015
Sustainability Faculty Fellows Program – University of Vermont 2014-2015
Rockefeller Foundation Bellagio Center Fellow – Bellagio, Italy July 2013
STEP Fellowship – Program in Science, Technology, Environment and Policy at the
Woodrow Wilson School, Princeton University 2009-2011
Nicolas Georgescu-Roegen Award - Young Scientist Award, Awarded by the International
Society of Ecological Economics, Nairobi 2008.
African Technology and Policy Studies Fellowship 2008-2011

V. Books

Fisher, B., R. Naidoo, T.H. Ricketts. (2015). A Field Guide to Economics for Conservationists. Roberts and Company Publishers, Greenwood Village, CO.

Turner, R. K., S. Georgiou, B. Fisher. (2008). Valuing Ecosystem Services: the case of multifuncitonal wetlands. London, Earthscan.

VI. Peer-Reviewed Journal Publications (* Grad. student, #Undergrad. Student)

- 58. Naidoo R, Fisher B, Manica A, Balmford A. Estimating economic losses to tourism in Africa from the illegal killing of elephants. *Nature Communications*. 2016;
- 57. Hua F, Wang X, Zheng X, Fisher B, Wang L, Zhu J, et al. Opportunities for biodiversity gains under the world's largest reforestation programme. *Nature Communications*. 2016 Sep 6;7:12717.
- 56. Fisher B, Naidoo R. The Geography of Gender Inequality. *PlosONE*. 2016;11(3):e0145778.
- 55. Pailler S, Naidoo R, Burgess ND, Freeman OE, Fisher B. Impacts of community-based natural resource management on wealth, food security and child health in Tanzania. *PlosONE*. 2015;10(7):e0133252.
- 54. Fisher B, Ellis AM, Adams DK, Fox HE, Selig ER. Health, wealth, and education: the socioeconomic backdrop for marine conservation in the developing world. *Marine Ecology Progress Series*. 2015;530:233–42.
- 53. Bateman IJ, Coombes E, Fitzherbert E, Binner A, Bad'ura T, Carbone C, et al. Conserving tropical biodiversity via market forces and spatial targeting. *Proceedings of the National Academy of Sciences*. 2015;112(24):7408–13.
- 52. Schaafsma M, Morse-Jones S, Posen P, Swetnam R, Balmford A, Bateman I, et al. The importance of local forest benefits: Economic valuation of Non-Timber Forest Products in the Eastern Arc Mountains in Tanzania. *Global Environmental Change*.

2014;24:295-305.

- 51. Fisher B, Edwards DP, Wilcove DS. Logging and conservation: Economic impacts of the stocking rates and prices of commercial timber species. *Forest Policy and Economics*. 2014;38:65–71.
- 50. Fisher B, Balmford A, Ferraro PJ, Glew L, Mascia M, Naidoo R, et al. Moving Rio forward and avoiding 10 more years with little evidence for effective conservation policy. *Conservation Biology*. 2014;28:880–2.
- 49. Edwards DP, Magrach A, Woodcock P, Ji Y, Lim NT-L, Edwards FA, et al. Selectivelogging and oil palm: multitaxon impacts, biodiversity indicators, and trade-offs for conservation planning. *Ecological Applications*. 2014;24(8):2029–49.
- 48. Wilcove DS, Giam X, Edwards DP, Fisher B, Koh LP. Navjot's nightmare revisited: logging, agriculture, and biodiversity in Southeast Asia. *Trends in Ecology & Evolution*. 2013;28(9):531–40.
- Fisher B. Life, Fish and Mangroves: Resource Governance in Coastal Cambodia by Marschke (2012), 192 pp., University of Ottawa Press, Ottawa, Canada. ISBN 9780776607726 (pbk), GBP 19.99. *Oryx*. 2013;47(01):153–4.
- 46. Schaafsma M, Morse-Jones S, Posen P, Swetnam R, Balmford A, Bateman I, et al. Towards transferable functions for extraction of Non-timber Forest Products: A case study on charcoal production in Tanzania. *Ecological Economics*. 2012;80:48–62.
- 45. Fisher B. Conservation and livelihoods: identifying trade-offs and win–wins. *Frontiers in Ecology and the Environment*. 2012;10(7):343–343.
- 44. Edwards DP, Fisher B, Wilcove DS. High Conservation Value or high confusion value? Sustainable agriculture and biodiversity conservation in the tropics. *Conservation Letters*. 2012;5(1):20–7.
- 43. Swetnam R, Fisher B, Mbilinyi B, Munishi P, Willcock S, Ricketts T, et al. Mapping socio-economic scenarios of land cover change: A GIS method to enable ecosystem service modelling. *Journal of Environmental Management*. 2011;92(3):563–74.
- 42. Morse-Jones S, Luisetti T, Turner RK, Fisher B. Ecosystem valuation: some principles and a partial application. *Environmetrics*. 2011;22(5):675–85.
- 41. Fisher B, Turner RK, Burgess ND, Swetnam RD, Green J, Green RE, et al. Measuring, modeling and mapping ecosystem services in the Eastern Arc Mountains of Tanzania. *Progress in Physical Geography*. 2011;35(5):595–611.
- 40. Fisher B, Polasky S, Sterner T. Conservation and human welfare: economic analysis of ecosystem services. *Environmental and Resource Economics*. 2011;48(2):151–9.
- 39. Fisher B, Naidoo R. Concerns about extrapolating right off the bat. *Science*. 2011;333(6040):287–8.
- 38. Fisher B, Lewis SL, Burgess ND, Malimbwi RE, Munishi PK, Swetnam RD, et al. Implementation and opportunity costs of reducing deforestation and forest degradation in Tanzania. *Nature Climate Change*. 2011;1(3):161–4.
- 37. Fisher B, Edwards DP, Larsen TH, Ansell FA, Hsu WW, Roberts CS, et al. Costeffective conservation: calculating biodiversity and logging trade-offs in Southeast Asia. *Conservation Letters*. 2011;4(6):443–50.
- 36. Fisher B, Edwards DP, Giam X, Wilcove DS. The high costs of conserving Southeast Asia's lowland rainforests. *Frontiers in Ecology and the Environment*. 2011;9(6):329–34.
- 35. Fisher B, Bradbury RB, Andrews JE, Ausden M, Bentham-Green S, White SM, et al. Impacts of species-led conservation on ecosystem services of wetlands: understanding co-benefits and tradeoffs. *Biodiversity and Conservation*. 2011;20(11):2461–81.
- 34. Edwards DP, Fisher B, Wilcove DS. Green labelling being misused. *Nature*. 2011;475(7355):174–174.

- 33. Edwards DP, Fisher B, Giam X, Wilcove DS. Underestimating the costs of conservation in Southeast Asia. *Frontiers in Ecology and the Environment*. 2011;9(10):544–5.
- 32. Balmford A, Fisher B, Green RE, Naidoo R, Strassburg B, Turner RK, et al. Bringing ecosystem services into the real world: an operational framework for assessing the economic consequences of losing wild nature. *Environmental and Resource Economics*. 2011;48(2):161–75.
- 31. Turner RK, Morse-Jones S, Fisher B. Ecosystem valuation. *Annals of the New York Academy of Sciences*. 2010;1185(1):79–101.
- 30. Mulder K, Hagens N, Fisher B. Burning water: A comparative analysis of the energy return on water invested. *Ambio*. 2010;39(1):30–9.
- 29. Fisher B. Richard H. Thaler and Cass R. Sunstein: Nudge: Improving Decisions About Health, Wealth, and Happiness. *Environmental and Resource Economics*. 2010;47(1):149–50.
- 28. Fisher B. African exception to drivers of deforestation. *Nature Geoscience*. 2010;3(6):375–6.
- 27. Fisher B, Kulindwa K, Mwanyoka I, Turner RK, Burgess ND. Common pool resource management and PES: lessons and constraints for water PES in Tanzania. *Ecological Economics*. 2010;69(6):1253–61.
- 26. Edwards DP, Fisher B, Boyd E. Protecting degraded rainforests: enhancement of forest carbon stocks under REDD+. *Conservation Letters*. 2010;3(5):313–6.
- 25. Bateman IJ, Fisher B, Fitzherbert E, Glew D, Naidoo R. Tigers, markets and palm oil: market potential for conservation. *Oryx*. 2010;44(02):230–4.
- Ahrends A, Burgess ND, Milledge SA, Bulling MT, Fisher B, Smart JC, et al. Predictable waves of sequential forest degradation and biodiversity loss spreading from an African city. *Proceedings of the National Academy of Sciences*. 2010;107(33):14556–61.
- 23. Strassburg B, Turner RK, Fisher B, Schaeffer R, Lovett A. Reducing emissions from deforestation—The "combined incentives" mechanism and empirical simulations. *Global Environmental Change*. 2009;19(2):265–78.
- 22. Mwakalila S, Burgess N, Ricketts T, Olwero N, Swetnam R, Mbilinyi B, et al. Linking Science with Stakeholders to sustain Natural Capital. *The Arc Journal*. 2009;23:22–7.
- 21. Fisher B, Turner RK, Morling P. Defining and classifying ecosystem services for decision making. *Ecological Economics*. 2009;68(3):643–53.
- 20. Fisher B, Bolt K, Bradbury RB, Gardner TA, Green JM, Hole DG, et al. Two cultures of conservation. *Conservation Biology*. 2009;23(5):1069–71.
- 19. Fisher B, Balmford A, Green RE, Trevelyan R. Conservation science training: the need for an extra dimension. *Oryx*. 2009;43(03):361–3.
- 18. Burgess ND, Mwakalila S, Madoffe S, Ricketts T, Olwero N, Swetnam R, et al. Valuing the Arc-a programme to map and value ecosystem services in Tanzania. *Mountain Research Initiative*. 2009;
- 17. Turner RK, Fisher B. Environmental Economics: To the rich man the spoils. *Nature*. 2008;451(7182):1067–8.
- 16. Strassburg B, Turner K, Fisher B, Schaeffer R, Lovett A. An empirically-derived mechanism of combined incentives to reduce emissions from deforestation. *Global Environmental Change*. 2008;
- 15. Naidoo R, Balmford A, Costanza R, Fisher B, Green RE, Lehner B, et al. Global mapping of ecosystem services and conservation priorities. *Proceedings of the National Academy of Sciences*. 2008;105(28):9495–500.
- 14. Turner RK, Fisher B. To the rich man the spoils. *Nature*. 2008;451(7182):1067–8.
- 13. Fisher B. Ecology and Ecosystem Conservation by Oswald J. Schmitz (2007), x+ 166

pp., Island Press, Washington, DC, USA. ISBN 9781597260497 (pbk), USD 19.95; 9781597260480 (hbk), USD 40.00. *Oryx*. 2008;42(01):155–6.

- 12. Fisher B. Deep economy: The wealth of communities and the durable future. *Environmental Values*. 2008;17(3):422–4.
- 11. Fisher B, Turner RK. Ecosystem services: classification for valuation. *Biological Conservation*. 2008;141(5):1167–9.
- 10. Fisher B, Turner K, Zylstra M, Brouwer R, Groot R, Farber S, et al. Ecosystem Services and Economic Theory: Integration for Policy-Relevant Research. *Ecological Applications*. 2008;18(8):2050–67.
- 9. Costanza R, Fisher B, Ali S, Beer C, Bond L, Boumans R, et al. An integrative approach to quality of life measurement, research, and policy. *SAPI EN S Surveys and Perspectives Integrating Environment and Society*. 2008;(1.1).
- 8. Fisher B. CO2 emissions: Getting bang for the buck. *Science*. 2007;318(5858):1865-8.
- 7. Fisher B. Authorship in ecology. *Frontiers in Ecology and the Environment*. 2007;5(1):11.
- 6. Fisher B, Christopher T. Poverty and biodiversity: measuring the overlap of human poverty and the biodiversity hotspots. *Ecological Economics*. 2007;62(1):93–101.
- 5. Costanza R, Fisher B, Mulder K, Liu S, Christopher T. Biodiversity and ecosystem services: A multi-scale empirical study of the relationship between species richness and net primary production. *Ecological Economics*. 2007;61(2):478–91.
- 4. Costanza R, Fisher B, Ali S, Beer C, Bond L, Boumans R, et al. Quality of life: An approach integrating opportunities, human needs, and subjective well-being. *Ecological Economics*. 2007;61(2):267–76.
- 3. Fisher B, Costanza R. Environmental policy: regional commitment to reducing emissions. *Nature*. 2005;438(7066):301–2.
- 2. Costanza R, Stern D, Fisher B, He L, Ma C. Influential publications in ecological economics: a citation analysis. *Ecological Economics*. 2004;50(3):261–92.
- 1. Costanza R, Erickson J, Fligger K, Adams A, Adams C, Altschuler B, et al. Estimates of the genuine progress indicator (GPI) for Vermont, Chittenden County and Burlington, from 1950 to 2000. *Ecological Economics*. 2004;51(1):139–55.

VII. PEER-REVIEWED BOOK CHAPTERS

- Fisher, B., 2012. Poverty, Payments, and Ecosystem Services in the Eastern Arc Mountains of Tanzania, in: Integrating Ecology and Poverty Reduction. Springer New York, pp. 173–189.
- Fisher, B., Bateman, I., Turner, R.K., 2011. Valuing ecosystem services: benefits, values, space and time.
- Fisher, B., Bateman, I., Turner, R.K., 2010. Valuing ecosystem services. Valuation of Regulating Services of Ecosystems: Methodology and Applications.
- De Groot, R., Fisher, B., Christie, M., Aronson, J., Braat, L., Haines-Young, R., Gowdy, J., Maltby, E., Neuville, A., Polasky, S., others, 2010. Integrating the ecological and economic dimensions in biodiversity and ecosystem service valuation.
- Fisher, B., Erickson, J.D., 2007. Growth and equity: dismantling the Kaldor-Kuznets-Solow consensus. Erickson y Gowdy, op. cit 53–71.
- Groot, R. de, Fisher, B., Christie, M., 2010. Integrating the ecological and economical dimensions in biodiversity and ecosystem services valuation. The economics of

ecosystems and biodiversity. Ecological and economic foundations. London: Earthscan 9–40.

- Kumar, P., 2010. The Economics of Ecosystems and Biodiversity: ecological and economic foundations. UNEP/Earthprint.
- Turner RK, Fisher B. An ecosystem services approach: income inequality and poverty In: Salih M, editor. Climate Change and sustainable development: new challenges and poverty eduction. Cheltenham: Edward Elgar 2009. p. 36-46.

VIII. Journal Articles in Review, in Revision or in Prep (* Grad. student,

#Undergrad. Student)

- Fisher, B., Naidoo, R., Guernier, J., Johnson, K., Mullins, D., Robinson, D. Integrating Fisheries and Agricultural Programs for Food Security. Agriculture and Food Security. (in review at *Agriculture and Food Security*)
- Roman, J., DeLauer, V., Altman, I., Boumans, R., Fisher, B., Kaufman, L. Stranded Capital: Adding stewardship to the ecosystem-service equation (in revision for *Conservation Biology*)
- Herrera, D., Ellis, A., Fisher, B., Golden, C.D., Johnson, K., Mulligan, M., Pfaff, A., *Treuer, T., Ricketts, T.H. Global effects of watershed condition on human health. (submitted to *Proceedings of the National Academy of Sciences* (PNAS))
- Balmford, A., *Cole, E., Sandbrook, C., Fisher, B. Knowing but not doing (very much): the environmental footprints of conservationists, economists and medics, and the limits to environmental education. (to be submitted to *Conservation Biology*)
- *Byerly, H.J., *Hammond Wagner, C., *Schwarts, A., Polasky, S., Balmford, A., Ferraro, P.J., Fisher, B. Current evidence for effectiveness of behavioral interventions on proenvironmental decision-making. (to be submitted to *Frontiers in Ecology and the Environment*)
- Fisher, B., #Jean, H., #Adams, C., Galford, G. The Power of Mom: priming and pro-social behavior. (To be submitted to *Psychological Science*)
- Fisher, B., Mullins, D., Naidoo, R., #Ciu, L., Skinner, A. Fishing, Farming and Food Security in Coastal East Africa. (to be submitted to *World Development*)
- Fisher, B., Verutes, G. 20 years on: Ecosystem Services in the Literature. (to be submitted to *Ecosystem Services*)
- Huang, G., Zhou, W., Fisher, B., Qian, Y. Cleaner air and more equitable health outcomes for Beijing. (to be submitted to *Science*)
- #Martin, C., Fisher, B., Green Priming and Pro-environmental Behavior: Motivating compliance to the mandatory composting law in Vermont. Environment and Behavior.
- Fisher, B., Herrera, D., Pfaff, A., Ricketts, T.H. The Critical Role of Natural Capital for Human Health Outcomes in the Developing World. (to be submitted to *The Lancet*)

IX. Grants, Contracts and Pending Support (>\$900,000 secured as PI)

Title: Coastal Livelihoods: exploring gender dynamics, poverty and human health is fishing-farming communities

Funding: \$32,000 Source: World Wildlife Fund, Washington, DC, USA Status: Awarded; 2014-2015 Principle Investigator: **Brendan Fisher**, University of Vermont Co-Investigators: Dan Mullins, CARE Mozambique, Maputo, Mozambique

Title: Lifting Baselines: Targeting Successful Conservation Methods and Tracking the Spread of Recovering Species

Funding: \$10,000
Source: Gund Institute Competitive Research Development Grant
Status: Awarded; 2014-2016
Principle Investigator: Brendan Fisher, University of Vermont; Joe Roman, Harvard University

Title: Exploring the links between harmful algal blooms and human well-being: how and why communities take action

Funding: \$600,000
Source: Environmental Protection Agency
Status: Pending
Principle Investigator: Rachelle Gould, Jason Stockwell, University of Vermont
Co-Investigators: Brendan Fisher, Jana Kraft, University of Vermont; Ellijah Stommel, Dartmouth Hitchcock Medical; Todd Miller, University of Wisconsin; Robert Ostermeyer, Franklin/Grand Isle Community Action Program; James Ehlers, Lake Champlain International; Denise Smith, Friends of Lake Champlain

Title: Fishing Forever? Understanding Vulnerability and Opportunity in Coastal Fishing Communities.

Funding: \$411,000
Source: Rockefeller Foundation
Status: Awarded; 2013-2014
Principle Investigator: Brendan Fisher, University of Vermont
Co-Investigators: Althea Skinner, World Wildlife Fund; Dan Mullins, CARE Mozambique; Dorcas Robinson, CARE USA.

Title: Ecosystem Services on the Crown Lands, Windsor UK. 2013-2014. (Co-PI with Dr. Daniel Dias, *Route2 Sustainability*)

Funding: \$56,400

Source: Crown Lands, Windsor UK

Status: Awarded; 2013-2014

Principle Investigator: Brendan Fisher, University of Vermont; Daniel Lopez Dias, Route2 Sustainability

Title: Evaluating relationships among human health and welfare, ecological condition, and natural resource governance.

Funding: \$105,000

Source: NSF - National Socio-Environmental Synthesis Center (SESYNC)

Status: Awarded; 2012-2016

Principle Investigator: Brendan Fisher, University of Vermont; Taylor Ricketts, University of Vermont

Title: Incubating Behavioral Economics at Gund – Experiments into the relationships among community, nature and prosocial behavior

Funding: \$10,000 Source: Gund Institute Competitive Research Development Grant Status: Awarded; 2013-2014 Principle Investigator: **Brendan Fisher**, University of Vermont

Title: Developing a scientific evidence base for joint conservation-development interventions in the land/seascape of Primeiras e Segundas, Mozambique

Funding: \$1,500,000 (Fisher – CO-I on Full Grant; PI on \$200,000 section) Source: Sall Family Foundation Status: Awarded; 2011-2013 Principle Investigator: **Brendan Fisher**, University of Vermont

Title: Understanding Coastal Wetland Ecosystem Services

Funding: \$46,000 Source: Economic and Social Research Council/ Natural Environment Research Council Status: Awarded; 2007-2009

Principle Investigators: R. Kerry Turner, **Brendan Fisher**, University of East Anglia; Piran White, Dave Raffaelli University of York

Co-Investigators: Allison Holt, Jim Smart, University of York; Martin Solan, Mark Bulling, University of Aberdeen

Title: Ecosystem service delivery by real-world conservation approaches: a scoping study for a lowland wetland research platform

Funding: \$24,000

Source: UKPopNet/NERC

Status: Awarded; 2008-2009

Principle Investigator: **Brendan Fisher**, Jenny Gill, University of East Anglia; Richard Bradbury, Royal Society for the Protections of Birds

Co-Investigators: Julian Andrews, Stephanie Bentham Green, University of East Anglia; Sue White Cranfield University; Malcolm Auden, Royal Society for the Protection of Birds

Title: Valuing Wild Nature

Funding: \$34000

Source: RSPB/Natural England

Status Awarded: 2006-2007

Principle Investigator: Brendan Fisher, University of East Anglia

Co-Investigators: R. Kerry Turner, University of East Anglia; Robin Naidoo, World Wildlife Fund

Title: Environmental Justice in a Ecologically Changing USA

Funding: \$1000

Source: UVM OVPR

Status: Pending

Principle Investigator: Brendan Fisher

Co-Investigators: Bindu Pannikar, Rachelle Gould, Trish O'kane, Lynn Bevins, Universyt of Vermont

Title: Effects of scale and stakeholder values on the relationships among ecosystem services: implications for conservation planning

Funding: \$175,000

Source: David H. Smith Conservation Fellowship Status: Pending Principle Investigator: Rose Graves, University of Wisconsin-Madison Co-Investigators: **Brendan Fisher**, Taylor Ricketts, University of Vermont

Title: Challenges and Opportunities of Urban Argoecology in Vermont and Cuba

Funding: \$10,000
Status: Pending
Source: Gund Institute Competitive Research Development Grant
Principle Investigator: Ernesto Mendez, University of Vermont
Co-Investigators: Brendan Fisher, Taylor Ricketts, Joshua Farley, University of Vermont; Roberto Sanchez, Fundacio Antonio Jimenez Nunes; Nelson Companioni, Institute for Tropical Agriculture

Title: Socio-economic Impacts of Forest Governance in the Northern Forest Matrix Funding \$117, 560

Status: 2016-2019 Source: USDA NIFA; Subaward from UVM McIntire-Stennis Capacity Grant Principle Investigator: Brendan Fisher (subgrant); Nancy Mathews, University of Vermont

X. GRANTS WITH UNDERGRADUATE STUDENTS FOR UNDERGRADUATE RESEARCH

Charlie Martin - \$5,000 Framing the Universal Composting Laws and Acceptance of it in Vermont: a behavioral economics experiment

- Holly St. Jean \$2000 "When we ate endangered species: evaluation of our changing tastes and changing menus."This is an on-going evaluation of the species served in New York City 1850-1930.
- Jen Hayes \$3,300 "Does sequential Blueberry- Raspberry cropping increase wild pollinator diversity and abundance?"

XI. INDICATORS OF SCHOLARLY IMPACT

H-Index – 30 (Google Scholar Metrics Citations – 6520 Highest Cited First Author Paper: 1526 citations

Thomson Reuters Highly Cited Papers (papers in the top 1% cited in their field):

- Fisher B, Turner RK, Morling P. Defining and classifying ecosystem services for decision making. *Ecological Economics*. 2009;68(3):643-53.
- Balmford A, **Fisher B**, Green RE, Naidoo R, Strassburg B, Turner RK, et al. Bringing Ecosystem Services into the Real World: An Operational Framework for Assessing the Economic Consequences of Losing Wild Nature. *Environmental & Resource Economics*. 2011;48(2):161-75. **Shared Lead Authorship*
- Strassburg B, Turner RK, **Fisher B**, Schaeffer R, Lovett A. Reducing emissions from deforestation-The "combined incentives" mechanism and empirical simulations. *Global Environmental Change*-Human and Policy Dimensions. 2009;19(2):265-78.

• Wilcove DS, Giam X, Edwards DP, **Fisher B**, Koh LP. Navjot's nightmare revisited: logging, agriculture, and biodiversity in Southeast Asia. *Trends in Ecology & Evolution*. 2013;28(9):531–40.

Most Highly Cited Paper in Ecological Economics in past 5 years (316 citations):

• Fisher B, Turner RK, Morling P. Defining and classifying ecosystem services for decision making. *Ecological Economics*. 2009;68(3):643-53.

XII. INVITED SEMINARS

- 2017 Beijing Normal University "The Role of Ecosystem Services Assessments for Public Decision Making"
 Cambridge University Keynote at Student Conference on Conservation Science "Behavioural Economics and Conservation: Will conservation's success hinge on figuring out how weird people are?"
 McGill University Geospectives Seminar Series "Human Health Impacts of Ecosystem Degradation from land to sea"
- 2016 United Nations/IUCN Side Event for the Sustainable Development Goals Launch, "Community Conservation and Sustainability"
 Exeter University – Land, Environment, Economics and Policy Institute – "Ecosystem Services and Human Health – From BIG Data to Less Big Case Studies" AZTI (Center for Technological Innovation in the Marine Environment), San Sebastian, Spain – "Big Data, Marine Protected Areas and Ecosystem Services." AZTI (Center for Technological Innovation in the Marine Environment), San Sebastian, Spain – "Big Data, Marine Protected Areas and Ecosystem Services." AZTI (Center for Technological Innovation in the Marine Environment), San Sebastian, Spain – "Fishing, Farming and Food Security: Ecosystem Management and Coastal Livelihoods."
- 2015 University of Vermont Gund Institute "Tea" Series "Fishing, Farming and Foods Security"
 National Oceanic and Atmospheric Administration (NOAA)– "Economics as a Tool for Conservation"
 Iceland State Department US-Iceland Exchange "Ecosystem Services: Research for Practical Policy Formation"
- 2014 University of Vermont Department of Economics Seminar Series "Russell Brand, Identity Economics and our Malleable Decision-making Processes"
 COP 20/CiFOR Event Lima Peru "Cost-effective conservation in tropical forests" (*did not attend*)
- **2013** Stanford University Stanford Change Labs "Small-scale fisheries management, poverty alleviation and biodiversity conservation"
- 2012 Princeton University Woodrow Wilson School STEP Seminar Series "Forests, Economics, and Local Livelihoods: Can We Have Our Wood and Eat Too?" University of Maine College of Natural Sciences, Forestry and Agriculture Biodiversity Conservation, Ecosystem Services and Poverty Alleviation in East Africa"

- **2011** Senckenberg Museum of Natural History, Frankfurt, Germany "Biodiversity Conservation and Poverty Alleviation Challenges and Opportunities"
- 2010 Cambridge University The Leverhulme Trust/ Valuing the Arc Seminar "Scenario building for conservation policy development"
 Cambridge University The Leverhulme Trust/ Valuing the Arc Seminar "The Opportunity Cost of Conservation in a Biodiversity Hotspot"
 American Museum of Natural History Student Conference on Conservation Science "What Role for Economics in Conservation Science?"
- 2009 Ashoka Trust for Research in Ecology and the Environment, Bangalore, India "Ecosystem Services for Poverty Alleviation"
 Cambridge University – Student Conference on Conservation Science – "What's economics got to do with conservation?"
 York University – Maintaining Biodiversity in an Poverty Hotspot – Lessons from the Eastern Arc Mountains in Tanzania
- 2008 Chinese Academy of Science Joint US-China Meeting on Ecosystem Services Cambridge University – Land Economics – "Opportunity Cost and Cost-effective Conservation" Cambridge University – Student Conference on Conservation Science – "What's economics got to do with conservation?" Oxford University – School of Geography – "The Basics and Future of Ecosystem Services"
- 2007 Cambridge University Student Conference on Conservation Science "Economics and Biodiversity Conservation?"
 University of Nottingham Centre for Environmental Management "Applying Ecosystem Service Assessments in the Field A case study in the Eastern Arc Mountains."

XIII. CONFERENCE PRESENTATIONS

- 2016 Indio Hatuey Agricultural Experimental Research Station, Matanzas, Cuba
- 2015 Ecological Society of America, Baltimore, Maryland
- 2014 Society for Conservation Biology, Missoula, Montana
- 2014 World Small-Scale Fisheries Congress, Merida, Mexico
- 2013 Rockefeller Bellagio Fellows, Bellagio, Italy
- 2012 Society for Conservation Biology, Oakland, California
- 2010 Association for Tropical Biology and Conservation, Bali, Indonesia
- 2008 International Society of Ecological Economics, Nairobi, Kenya
- 2006 International Society of Ecological Economics, Delhi, India
- 2004 Sustainable Communities, Burlington, Vermont
- 2004 International Society of Ecological Economics, Montreal, Canada
- 2003 United States Society of Ecological Economics, Saratoga Springs, New York

XIV. TEACHING EXPERIENCE

University of Vermont

- Sustainability Science ENVS 188 (3 credits 45 students) Year: 2016
- Research Methods ENVS 201 (3 credits ~18 students) Year: 2015-2016
- Integrating Science, Society and Policy NR 205 (3 credits 86 students) Year: 2015
- Human Behavior and Sustainability NR199 (1 credit 12 students) Year: 2015
- Behavioral Economics and Sustainability NR385 (3 credits 9 grad.students) Yr: 2015

Princeton University

- Topics in Ecology: The Science and Policy of Conserving Ecosystem Services EEB 533 (3 credits 9 grad students) Year: 2009.
- Topics in Science: Technology and Environmental Policy Biodiversity Conservation: Scientific and Policy WWS 586B / EEB 516 (3 credits – 10 students) Year: 2011.

University of East Anglia

- Introduction to Economics of the Environment ENV M521 (3 credits 45 students) Year: 2007-2009.
- Economics of the Environment (Graduate Level 3 credits 14 students). School of Year: 2008.

XIV. GRADUATE STUDENTS AND POST-DOCTORAL MENTORING

PhD Advisor

Raphael Filippelli, Universition of Vermont, 2016- present Hilary Byerly, University of Vermont, 2015- present Bernardo Strassburg, University of East Anglia, 2006-2009 Radi T. Tawfik, University of East Anglia, 2006-2010

PhD Committee

Arianna Cano, University of Vermont, 2015- present Courtney Hammond-Wagner, University of Vermont, 2015- present Elizabeth Palchuk, University of Vermont, 2015- present Ren Qing, University of Vermont, 2015 – present

MSc Advisor

Marc Hecht, University of East Anglia, 2008 Carla Fox, University of Vermont, 2016 – present

Post-Doctoral Researchers

Diego Herrera, University of Vermont, 2015-2016 Alicia Ellis, University of Vermont, 2014-2015 Fangyuan Hua, Princeton University, 2014-2016 Rose Graves, University of Vermont, *pending*

XV. UNDERGRADUATE STUDENT MENTORING

Charles Martin – Senior Thesis Advisor, 2015-2016: Final paper to be submitted to *Environment and Behavior*.

Charlotte Adams – Research Intern 2014-2015: Helped with research on drivers of pro-social behavior. Resultant paper (co-authored by student) to be submitted to *Psychological Science*.

Haley Jean – Research Intern 2014-2016: Co-designed research on drivers of pro-social behavior. Resultant paper (co-authored by student) to be submitted to *Psychological Science*.

Holly St. Jean – Research Intern 2016: Helped with research on endangered species on North American restaurant menus, and our changing tastes over time. Paper (co-authored by student) will be submitted to History Notes in *Frontiers in Ecology and the Environment*.

Jennifer Hayes – Senior Thesis Advisor, 2016-2017: Research on wild pollinators on berry farms, and the behavioral drivers of farmers to intercrop.

Adelaide Cummings – Senior Thesis Advisor, 2016-2017: Research on costs and benefits of CSA membership versus meal delivery services (e.g. Blue Apron).

Tyler Ford – Senior Thesis Advisor, 2016-2017: Research on how the weather affects our rationales in support of or against the belief in anthropogenic-induced climate change.

Rose Thackeray – Senior Thesis Advisor, 2016-2017: Research on how permaculture activities affect non-farming life domains.

2015- present	Diversity Task Force, Rubenstein School of Environment and Natural Resources
2015- present	Curriculum Committee, Rubenstein School of Environment and
	Natural Resources
2015- present	Core-Curriculum Revitalization Committee - NR 205, Rubenstein
	School of Environment and Natural Resources
2015- present	Graduate Funding Review Panel, Rubenstein School of Environment and Natural Resources
2015- present	Faculty Leadership Team – Master of Science in Leadership for Sustainability, University of Vermont

XV. UNIVERSITY SERVICE

XVI. PROFESSIONAL SOCIETIES

Ecological Society of America Society for Conservation Biology International Society for Ecological Economics

XVII. PRESS COVERAGE

The New York Times, Nature, Science, Yahoo News, BBC Radio 4, Rueters, DotEarth,

Vermont Public Radio, World News.com, Climateprogress.org, Chemistry World, Science Watch, Mongabay, eurekaalert.org, Science Daily, Bisnis Indonesia, Newswise.com, LiveScience, Science Daily, Nature World News, SciDevNet

XVIII. POPULAR PRESS

www.nature.com

World Wildlife Fund's Dr Brendan Fisher on improving fish diversity and conservation agriculture in Mozambique (2014) <u>http://blogs.nature.com/soapboxscience/2014/04/11/world-wildlife-funds-dr-brendan-fraser-on-improving-fish-diversity-and-conservation-agriculture-in-mozambique</u>

www.wwf.org

Fishing Farming and Small Miracles in Mozambique (2014) <u>http://www.worldwildlife.org/blogs/science-driven/posts/farming-fishing-and-small-miracles-in-mozambique</u>

LiveScience, YahooNews

On Mozambique Coast, Food Grows Alongside Species Diversity http://www.livescience.com/40556-on-mozambique-coast-food-grows-alongside-speciesdiversity.html http://news.yahoo.com/mozambique-coast-food-grows-alongside-species-diversity-op-001643482.html

XIX. REVIEW BOARDS AND PANELS

Environmental Protection Agency; Center for International Forestry Research (CiFor); German Space Agency; Netherlands Organization for Scientific Research; USDA (Nifa) – declined); Department for Environment, Food, and Rural Affairs, UK (DEFRA)