

Christoph Nolte

Boston University
685 Commonwealth Avenue, Boston, MA 02215

+1 (734) 747-0305
chnolte@bu.edu

EDUCATION

- 2014 PhD Natural Resources & Environment, University of Michigan
- 2008 International MSc of Rural Development, Humboldt University Berlin (Germany), Chinese Academy of Social Sciences (China), Agrocampus Rennes (France), Universidad de Córdoba (Spain)
- 2005 BSc Environmental & Resource Management, Brandenburg University of Technology

ACADEMIC EMPLOYMENT

- 2016 – Assistant Professor, Boston University, Department of Earth & Environment
- 2015 – 2016 Postdoctoral Scholar, Stanford University, School of Earth Sciences
- 2010 – 2014 Research Assistant, University of Michigan, School of Natural Resources and Environment
- 2008 – 2010 Lecturer & Research Assistant, University of Greifswald, Department for Landscape Economics & Department for Sustainability Science

RESEARCH INTERESTS

Emergence and effectiveness of land conservation interventions. Current focus on private land protection in the USA, Colombia, and Chile: explaining allocation, revealing site preferences, assessment of impacts on land cover, connectivity, and fragmentation using large datasets and satellite imagery. Past work on impacts of parks, indigenous lands, private land regulation, payments, certification, supply-chain mechanisms, and biosphere reserves in > 20 countries.

PUBLICATIONS

Journal Articles

Citations: **702** (Google Scholar) / **302** (ISI) h-index: **13** (Google Scholar) / **8** (ISI)

- 2018 **Nolte C.** Buying forests for conservation: contours of a global trend. *Curr Opin Environ Sustainability* 32:68-75

- Nolte C**, Gobbi B, le Polain de Waroux Y, Piquer-Rodríguez M, Butsic V, Lambin E. Challenges in attributing avoided deforestation to policies and actors: lessons from provincial zoning in the Argentine Dry Chaco. *Ecol Econ* 150:346-352
- Lambin E, Gibbs H, Heilmayr R, Carlson K, Fleck L, Garrett R, le Polain de Waroux Y, McDermott C, McLaughlin D, Newton P, **Nolte C**, Pacheco P, Rausch L, Streck C, Thorlakson T, Walker N. The role of supply-chain initiatives in reducing deforestation. *Nature Climate Change* 8(2):109-116
- Brandt J, **Nolte C**, Agrawal A. Deforestation and timber production in Congo after the implementation of sustainable management policy: a response to Karsenty et al (2017). *Land Use Policy* 77, 375-378
- 2017 **Nolte C**, Gobbi B, le Polain de Waroux Y, Piquer-Rodríguez M, Butsic V, Lambin E. Decentralized land use zoning reduces large-scale deforestation in a major agricultural frontier. *Ecol Econ* 136: 30-40
- Nolte C**, le Polain de Waroux Y, Munger J, Reis T, Lambin E. Conditions influencing the adoption of effective anti-deforestation policies in South America's commodity frontiers. *Glob Environ Change* 43: 1-14
- le Polain de Waroux Y, Garrett R, Graesser J, **Nolte C**, White C, Lambin E. The restructuring of South American soy and beef production and trade under changing environmental regulations. *World Dev*, available online
- Robinson B, Masuda Y, Kelly A, Holland M, Bedford C, Childress M, Fletschner D, Game E, Ginsburg C, Hilhorst T, Lawry S, Miteva D, Musengezi J, Naughton-Treves L, **Nolte C**, Sunderlin W, Veit P (2017) Incorporating land tenure security into conservation. *Conserv Lett*, 11(2):1-12
- 2016 **Nolte C**. Identifying challenges to enforcement in protected areas: empirical insights from 15 Colombian parks. *Oryx* 59(02): 317-322
- Brandt J, **Nolte C**, Agrawal A. Deforestation and timber production in Congo after the implementation of sustainable forest management policy. *Land Use Policy* 52: 15-22
- 2015 Ferraro P, Hanauer M, Miteva D, Nelson J, Pattanayak S, **Nolte C**, Sims K. Estimating the impacts of conservation on ecosystem services and poverty by integrating modeling and evaluation. *Proc Natl Acad Sci USA* 112 (24): 7420-7425
- Coad L, Leverington F, Knights K, Geldmann J, Eassom A, Kapos V, Zamora C, Cuadros I, **Nolte C**, Burgess N, Hockings M. Measuring impact of protected area management interventions: current and future use of the global database of protected area management effectiveness. *Phil Trans R Soc B* 370: 20140281

- 2014 Brandt J, **Nolte C**, Steinberg S. Foreign capital, forest change and regulatory compliance in Congo Basin forests. *Environ Res Lett* 9(4): 044007
- 2013 **Nolte C**, Agrawal A, Silvius K, Soares-Filho B. Governance regime and location influence avoided deforestation success of protected areas in the Brazilian Amazon. *Proc Nat Acad Sci USA* 110(13): 4956-4961
- Nolte C**, Agrawal A, Barreto P. Setting priorities to avoid deforestation in Amazon protected areas: Are we choosing the right indicators? *Environ Res Lett* 8(1): 015049
- Nolte C**, Agrawal A. Linking management effectiveness indicators to observed effects of protected areas on fire occurrence in the Amazon Rainforest. *Conserv Biol* 27(1): 155-165
- Coad L, Leverington F, Burgess N, Cuadros I, Geldmann J, Marthews T, Mee J, **Nolte C**, Stoll-Kleemann S, Vansteelant, N, Zamora C, Zimsky, M, Hockings M. Progress towards the CBD protected area management effectiveness targets. *Parks* 19: 13-24
- 2012 Stoll-Kleemann S, Kettner A, Leverington F, **Nolte C**, Nielsen G, Bomhard B, Stolton S, Marr M, Hockings M. Erfassung der Managementeffektivität in Europas Schutzgebieten [Assessing the management effectiveness of Europe's protected areas]. *Landschaft und Naturschutz* 44(2): 034-044
- 2009 Stoll-Kleemann S, Schliep R, **Nolte C**. The Global Research Centre for Biosphere Reserve Advancement. A New Emphasis on Social Dynamics and Exchange in UNESCO's World Network. *GAiA* 18(3): 270-272

In Review

Nolte C, Meyer S, Sims K, Thompson J. Voluntary, permanent land protection reduces forest loss and development in a rural-urban landscape. *Conserv Lett* (resubmitted)

Sims K, Thompson J, Meyer S, **Nolte C**, Plisinski J. The local economic impacts of protected land in New England 1990-2015. *Conserv Biol* (revise & resubmit)

Kelly A, Robinson B, Masuda Y, Holland M, Bedford C, Childress M, Game E, Hilhorst T, Lawry S, Miteva D, Musengezi J, Naughton-Treves L, **Nolte C**, Sunderlin W, Viet P. The Tenure Governance Index: mapping national rule for tenure security. *Environ Conserv* (resubmitted)

In Progress

"Blockchains in Conservation" with Owen Cortner and Rachael Garrett

"Pricing conservation easements: appraiser bias and a role for automated valuation" with Rubina Canesi

“Where it makes no difference: selection bias in the allocation of land tenure interventions in Guatemala’s protected areas” with Ana Reboredo Segovia

“Impacts of private conservation initiatives on forest cover change in Chile” with Pablo Cuenca and Robert Heilmayr

“Crowding in or out? Revisiting the spatial econometrics of private-public land protection” with H Jo Albers

Other Publications

2010 Leverington F, Costa KL, Courrau J, Pavese H, **Nolte C**, Marr M, Coad L, Burgess N, Bomhard B, Hockings M. Management effectiveness evaluation in protected areas – a global study. 2nd edition. IUCN: Gland, Switzerland

Nolte C, Leverington F, Kettner A, Marr M, Nielsen G, Bomhard B, Stolton S, Stoll-Kleemann S, Hockings M. Protected Area Management Effectiveness Assessments in Europe: A review of data, methods and results. BfN Skripten Series 271a. BfN: Bonn

2008 **Nolte C**. Property rights and payments for watershed services from forests in China: A case study of Beijing's Forest Eco-Compensation. MSc. Thesis

2006 **Nolte C**. The Biosphere Tour: Observations and Recommendations. Report to the UNESCO-MAB Secretariat, UNESCO field offices and biosphere reserves.

2005 **Nolte C**. Awareness of the "Man and the Biosphere" program and its impact on visitors' attitudes towards tourism services in Dana BR, Jordan. BSc. Thesis

AWARDS, GRANTS AND FELLOWSHIPS

2018 *Junior Faculty Fellow*, Hariri Institute for Computing and Computational Science & Engineering, Boston University

Evaluating the impacts of land tenure clarification and boundary demarcation on deforestation in Guatemala’s protected areas. Inter-American Development Bank, (consultancy supporting the summer salary of two PhD students)

2017 *Spatially optimizing investments in biodiversity conservation across decision hierarchies*. National Institute for Mathematical-Biological Synthesis Working Group (Co-PI with Paul Armsworth and Kailin Kroetz) – 3 workshops

2016 *Optimizing species conservation in the presence of special value decay*. Postdoctoral Fellowship, National Institute for Mathematical-Biological Synthesis, \$102,000 (declined to accept faculty position)

- 2014 UK Department for International Development (PI Arun Agrawal) - \$3,100,000
(author of core of successful proposal, not conducting research)
- 2013 National Science Foundation, Doctoral Dissertation Improvement Grant - \$12,915
- 2012 Rights and Resources Initiative (PI Arun Agrawal, 33% effort) – \$130,000
University of Michigan, Graham Doctoral Sustainability Fellowship – \$50,000
University of Michigan, Rackham International Student Fellowship – \$10,000
- 2011 Gordon and Betty Moore Foundation (PI Arun Agrawal, 50% effort) – \$399,000
University of Michigan, Rackham Summer Research Grant
University of Michigan, International Institute Individual Fellowship (summer)
University of Michigan, Rackham Graduate Student Research Grant (summer)
- 2010 University of Michigan, School of Natural Resources & Environment, PhD Fellowship
- 2008 German Academic Exchange Service (DAAD), Field Research Fellowship
- 2007 European Union, Erasmus Mundus Action 3 Fellowship
- 2005 Beijing Institute of Technology, Semester Abroad Scholarship
- 2004 German Academic Exchange Service, Semester Abroad Scholarship

TEACHING

- | | |
|-----------------------|--|
| Boston University | Methods of Environmental Policy Analysis (Env Econ, undergraduate) |
| | Global Land Conservation: Theory and Practice (undergrad / grad) |
| | Data Science for Conservation Decisions (undergrad / grad) |
| Stanford University | Land Change Science (graduate) |
| Greifswald University | Economics of Biodiversity Conservation (graduate) |
| | Environmental Economics (undergraduate) |
| | Introduction to Economics (undergraduate), <i>ibid.</i> |

CONFERENCES / PRESENTATIONS

Workshop / Symposium Organizer

- 2017 “Spatially optimizing investments in biodiversity conservation across decision hierarchies”
(with Paul Armsworth and Kailin Kroetz). Workshop, National Institute for Mathematical-
Biological Synthesis, Knoxville, TN

“Land acquisitions for conservation: reconciling plans with empirical reality” Symposium, International Congress for Conservation Biology, Cartagena, Colombia

Presentations

*Invited presentations: locations highlighted in **bold***

- 2018 “Building a national parcel database to explain and support private land protection in the U.S.” **Max Planck – Yale Center for Biodiversity Movement and Climate Change, Yale University**, New Haven, CT
- “Building a national parcel database to explain and support private land protection in the U.S.” **Parcellation & Forest Loss Workshop, Vermont Natural Resources Council**
- “Allocation and Impact of Private Land Conservation in the U.S.: new evidence from large-scale parcel datasets” North American Congress for Conservation Biology, Toronto, Canada
- “Evaluating Impacts of Forest-Based Climate Mitigation Interventions” **Mercator Research Institute on Global Commons and Climate Change**, Berlin, Germany
- “Evaluating Impacts of Forest-Based Climate Mitigation Interventions” Alumni Conference, **Brandenburg University of Technology**, Cottbus, Germany
- “Impact and cost of voluntary land protection: a benchmark for measuring the real cost of conservation” Land & Livelihoods Workshop, Boston University
- “Tracing impacts of land protection in Massachusetts” Inter-Agency Land Committee, **Massachusetts Executive Office of Energy & Environmental Affairs**, Boston, MA
- “Estimated impacts of private land conservation on long-term land cover change in Massachusetts” Harvard Forest, Petersham, MA
- “Tracing causal impacts of conservation interventions across scales” **German Centre for Integrative Biodiversity Research (iDiv)**, Leipzig, Germany
- 2017 “Land acquisitions for conservation: drivers of spatial allocation in the U.S., Chile, and Colombia” International Congress for Conservation Biology, Cartagena, Colombia
- “Contribution of public land acquisitions to biodiversity conservation in Colombia”, International Congress for Conservation Biology, Cartagena, Colombia
- “Conserving more - but where? Explaining spatial drivers of land acquisitions for conservation in the U.S., Chile, and Colombia” Association of American Geographers (AAG) Annual Meeting, Boston, MA
- “Protecting more - but where? Spatial drivers of private land protection in the conterminous U.S.”, **Harvard Forest**, Petersham, MA

- “Conserving private properties: expensive niche or the future of land protection?“,
Governing Sustainability Seminar, School of Nat. Res. & Env., **University of Michigan**
- 2016 “Quantifying conservation influence: the allocation and impact of land conservation in
South America and the U.S.” (talk series)
Environmental Studies Colloquium, **University of Colorado - Boulder**
Institute on the Environment, **University of Minnesota**
Department of Forest & Wildlife Ecology, **University of Wisconsin - Madison**
Nat. Resources & Environmental Sciences Seminar, **University of Illinois - Urbana**
- “Disentangling the Impacts of Argentina’s Forest Law in the Chaco: Matching and its
Limitations” AAG Annual Meeting, San Francisco, CA
- “Adoption of effective forest conservation instruments in soy-and-cattle frontiers”
Workshop: Improving conservation outcomes from supply-chain interventions. Gordon &
Betty Moore Foundation, Palo Alto, CA
- “Tracing causal impacts in international forest conservation”
Oregon State University, Corvallis, Oregon (job talk)
Michigan State University, East Lansing, Michigan (job talk)
Boston University, Boston, Massachusetts (job talk)
- “Causal linkages between protected area support and impact” **Conservation Strategy Fund**,
Washington, DC (webinar)
- 2015 “Linkages between biodiversity finance and impact: The case of protected area support in
the Andes-Amazon region” **German Development Institute**, Bonn, Germany
- 2013 “Explaining the impacts of protected area management in the Andes-Amazon Region”,
Environmental Research Center (UFZ), **Leipzig**, Germany
- “Ecological and Social Impacts of Protected Areas in the Andes-Amazon Region”
International Congress for Conservation Biology, Baltimore, MD
- “Ecological and Social Impacts of Protected Areas in the Andes-Amazon Region”
AAG Annual Meeting, Los Angeles, CA
- 2012 “Explaining the impacts of protected area management in the Andes-Amazon Region”,
German Federal Ministry for Development & Economic Cooperation, Berlin, Germ.
- “Impacts of protected areas on deforestation: The relative importance of location,
governance and management”. IUCN World Conservation Congress, Jeju, S. Korea
- “Management effectiveness and impact of Amazon protected areas”.
Workshop: Governance and Conservation: Towards More Robust Indicators,
Gordon and Betty Moore Foundation, Palo Alto, CA

- “Management effectiveness of protected areas: Are we choosing the right measures?”
Student Conference on Conservation Science, University of Cambridge, UK
- 2011 “Management effectiveness of protected areas: Are we choosing the right measures?”
Conference: Forest Biodiversity in a Changing Climate, University of Freiburg, Germany
- 2010 “Evaluating the Management Effectiveness of European Protected Areas”.
Workshop: Instruments for Social Monitoring in German Biosphere Reserves, University of
Greifswald, Germany
- 2009 “Protected Area Management Effectiveness Evaluation: Rationale, Approaches and
Application in Europe”. CBD Workshop on PoWPA Implementation in CEE Countries,
International Academy of Nature Conservation, Vilm, Germany
- “Chinese Forest Policy in the 21st Century”, Lecture Series: Challenges of Sustainable
Resource Use in Asian Economies, **Humboldt University Berlin**, Germany
- 2007 “The Biosphere Tour: Implementation of the UNESCO-MAB Programme in Europe, Middle
East and Asia”. **EuroMAB Conference**: Bridging Science and Society, Antalya, Turkey

Workshop / Symposium Co-Organizer

- 2016 “Improving Conservation Outcomes from Supply-Chain Interventions (PI: Eric Lambin),
Gordon and Betty Moore Foundation, Palo Alto, CA
- 2011 “Joint Outcomes Related to Sustainability” (PI: Arun Agrawal), Capstone Conference,
University of Michigan, MI
- “Governance and Conservation: Towards More Robust Indicators” (PI: Arun Agrawal),
Gordon and Betty Moore Foundation, Palo Alto, CA
- 2009 “Evaluation of Management Effectiveness: Future Proofing”, Workshop, EUROPARC
Federation Conference, Strömstad, Sweden
- “Management Effectiveness of Europe's Protected Areas and the Convention on Biological
Diversity” (PI: Susanne Stoll-Kleemann) Workshop, International Academy of Nature
Conservation, Vilm, Germany

SERVICE

- Reviewer for Philosophical Transactions of the Royal Society B, Environmental & Resource
Economics, Conservation Biology, Conservation Letters, Environmental Research
Letters, Land Use Policy, Current Opinion in Environmental Sustainability
- 2018 Search Committee, Coupled Human-Natural Systems, Boston University

Social Science Curriculum Committee, Boston University

Merit Review Committee, Earth & Environment, Boston University

Governance Committee, Earth & Environment, Boston University

2017 Scientific Committee, International Congress of Conservation Biology, Cartagena, Colombia

2012-2013 Research Committee, School of Natural Resources and Environment, U of M

INTERNATIONAL RESEARCH EXPERIENCE

Bold: *major engagements (field research > 3 months). Italic: other qualitative field research.*

Remainder: remote empirical research

*Argentina, Austria, Australia, **Brazil**, Bolivia, Cambodia, Chile, Croatia, **China**, **Colombia**, Ecuador, Egypt, France, Germany, Guatemala, **Jordan**, Italy, Ireland, Lebanon, Montenegro, Morocco, Paraguay, Peru, Portugal, Republic of Congo, Thailand, Slovenia, Spain, **USA**, Vietnam*

LANGUAGES

German: native

English: fluent

Spanish: fluent

French: fluent

Portuguese: intermediate speaking & writing

Chinese: intermediate speaking & writing (1500 characters)

Arabic: basic speaking & writing