

Chris Shughrue

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Education

Yale University, School of Forestry and Environmental Science, New Haven, CT

Ph.D., Environmental Science, *expected May, 2018*

Thesis: *Global Urban Interdependencies and Systemic Risks in a Changing Climate*

Advisor: Karen C. Seto

Committee: Brad T. Werner (Scripps Institution of Oceanography) & Emily Erikson (Yale University)

Yale University, School of Forestry and Environmental Science, New Haven, CT

M.E.Sc., Environmental Science, *2013*

Master's Thesis: *Agent-Based Model of Regional Dynamics of Urbanization in India*

Advisor: Karen C. Seto

University of California, San Diego, La Jolla, CA

B.S., Earth Sciences *with high distinction*, *2011*

Honors Senior Thesis: *Future Oil Spills and Possibilities for Intervention: A Model for the Coupled Human-Environmental Resource Extraction System*

Advisor: Brad T. Werner

Publications

Niewöhner, J., Nielsen, J., Gasparri, I., Gou, Y., Hauge, M., Joshi, N., Schaffartzik, A., Sejersen, F., Seto, K.C., **Shughrue, C.** (2016). "Conceptualizing distal drivers in land use competition." *Land Use Competition*. Springer International Publishing, 21-40.

Adams, J., & **Shughrue, C.** (2015). Bottlenecks and East Indies Companies: Modeling the Geography of Agency in Mercantilist Enterprises. In *Chartering Capitalism: Organizing Markets, States, and Publics* (pp. 207-218). Emerald Group Publishing Limited.

Submitted

Shughrue, C. & Seto, K.C. Vulnerabilities of the Global Urban-Industrial Network to Climate Change Impacts. *Submitted to Climatic Change*.

Forthcoming

Shughrue, C., Werner, B.T., & Seto, K.C. Cascading Cyclone Impacts in Global Urban Circuits. *Expected Submission 1/31/2018 to Nature Climate Change*.

Awards & Honors

2014, Yale Institute of Biospheric Studies Research Grant

2012, Tropical Resources Institute Research Grant

2012, Hixon Center for Urban Ecology Research Grant

2011, Yale MacMillan Center Travel Grant

2010, Outstanding Student Paper Award, American Geophysical Union Fall Meeting

2010, American Geophysical Union Student Travel Grant

2009, NSF Research Experience for Undergraduates Participant, Oregon State University

2008 – 2010, Provost Honors, University of California, San Diego

Presentations

Shughrue, C. *Structural Vulnerabilities of a Changing Global Urban System*. Doctoral Student Conference, Yale School of Forestry & Environmental Studies. April, 2017.

Shughrue, C. *Geography of Global Multi-Urban Linkages*. Urban Transitions Conference, Shanghai, China. September, 2016.

Shughrue, C. *Dynamics of Romance: Simulating and Adolescent Romantic Network*. Doctoral Student Conference, Yale School of Forestry & Environmental Studies. September, 2014.

Shughrue, C., Seto, K.C. *What is Driving Patterns of Urbanization in Delhi?* India Urban Conference, Mysore, India, November 2011.

Shughrue, C., Werner, B.T. *Future Oil Spills and Possibilities for Intervention: A Model for the Coupled Human-Environmental Resource Extraction System*. American Geophysical Union Fall meeting, San Francisco, CA, December 2010.

Albright, J., Gustafson, N., Nelson, M., Ramirez, J., Rodriguez, B., **Shughrue, C.,** Jones, J. *Diel fluctuations in streamflow depend on stream channel sediment storage and valley-floor vegetation in forested western Cascades of Oregon, USA*. 2010 American Geophysical Union Fall meeting, San Francisco, CA, December 2010.

Teaching Experience

Observing Earth from Space (G&G 562/ FES 726)

Teaching Fellow, Spring 2018

Yale University

New Haven, CT

Industrial Ecology (FES 884/ENAS 645)

Teaching Fellow, Fall 2016 - Fall 2017

Yale University

New Haven, CT

Probabilistic Modeling in Ecology, Evolution and Disease (EEB 335/EMD 595)

Teaching Fellow, Spring 2012

Yale University

New Haven, CT

University Service

F&ES Student Affairs Committee (SAC)

Academic Affairs Committee Representative September 2013 – January 2015

Yale University

New Haven, CT

F&ES Doctoral Student Interest Group

Co-Leader September 2013 – January 2015

Yale University

New Haven, CT

Doctoral Student Conference

Co-Organizer October 2014

Yale University

New Haven, CT

Out in the Woods (F&ES LGBT Student Group)

Co-Leader September 2012 – January 2014

Yale University

New Haven, CT

Journal Reviewer

Global Environmental Change

Journal of Urban Technology

Primary Research Methods and Tools

Complex Systems & Agent-Based Simulation

Social Network Analysis & Simulation

Software: Matlab, ArcGIS, ENVI, SQL, C++, Gephi, Pajek

Big Data Analysis

Geospatial Analysis

Research and Professional Experience

**Intergovernmental Panel on Climate Change
Human Settlements, Infrastructure and Spatial Planning
Chapter**

Research Assistant 09/2012 – 05/2013

Advisor: Karen Seto, Coordinating Lead Author, Ph.D.

Yale University

New Haven, CT

**School of Forestry and Environmental Studies
Urbanization and Global Change Group**

Research Assistant 09/2011 – 05/2013

Advisor: Karen Seto, Ph.D.

Yale University

New Haven, CT

**Institute of Geophysics and Planetary Physics
Complex Systems Laboratory**

Research Assistant IV 06/2009 – 03/2011;

Research Associate 03/2011 – 09/2011

Advisor: Brad Werner, Ph.D.

Scripps Institution of Oceanography

La Jolla, CA

Eco-Informatics Summer Institute

Research Experience for Undergraduates (REU) Summer 2010

Advisor: Julia Jones, Ph.D.

Oregon State University

Corvallis, OR