

JESSICA CAVIN BARNES

jcavinbarnes@ncsu.edu

EDUCATION

Ph.D., Forestry & Environmental Resources, North Carolina State University, Raleigh, NC, in process
Dissertation: *Engineering conservation: The politics and ecology of synthetic species reintroductions*

M.P.H., Brigham Young University, Provo, UT, 2012

Practicum: *Communicating about sea-level rise risk in coastal North Carolina: A comprehensive audience analysis*

B.A., Biology, Sociology, Mercer University, Macon, GA, 2009

PUBLICATIONS

Barnes, J. C. (2017). *Responsible Innovation Subject Aid*. National Academy of Engineering, Online Ethics Center for Engineering and Science. www.onlineethics.org

Gutzmann, N., Elsensohn, J. E., **Barnes, J. C.**, Baltzegar, J., Jones, M. S., Sudweeks, J. (forthcoming). CRISPR-based gene drive in agriculture will face technical and governance challenges. *EMBO Reports*.

Barnes, J. C., Pitts, E., Barnhill-Dilling, S. K., Delborne, J. A. (forthcoming). Genetic Engineering. In Pittinsky, T. (Ed.) *The Cambridge Handbook of Science, Technology & Society*. Cambridge University Press.

Baltzegar, J., **Barnes, J. C.**, Elsensohn, J.E., Gutzmann, N., Jones, M. S., King, S., and Sudweeks, J. (forthcoming). Anticipating complexity in the deployment of gene drive insects in agriculture. *Journal of Responsible Innovation*.

Yamaguchi, A., **Barnes, J. C.**, & Appleby, T. (2017). Rhythm generation, coordination, and initiation in the vocal pathways of male African clawed frogs. *Journal of neurophysiology*, 117(1), 178-194.

Byron, C. D., Becker, R., Bullard, E., **Cavin, J.**, et al. (2008). Quantitative analysis of litter composition in a historic Macon neighborhood experiencing revitalization. *Georgia Journal of Science*, 66(2), 61-71.

AWARDS AND FELLOWSHIPS

Namkoong Family Graduate Fellowship for Excellence in Conservation and Ethics, Department of Forestry and Environmental Resources, 2017

National Science Foundation Integrated Graduate Education and Research Traineeship “Genetic Engineering and Society: The Case of Transgenic Pests” (Award No. 1068676), 2014-2018

CONFERENCE PRESENTATIONS AND POSTERS

Barnes, J. C. (2017, August 31). *The co-production of resurrection science and policy*. Paper presented at the Society for the Social Studies of Science (4S) Annual Meeting; Boston, MA.

Barnes, J. C. (2017, February 24). *Engineering Futures in Biodiversity Conservation*. Paper presented at the Seventh Annual Dimensions of Political Ecology Conference; Lexington, KY.

Barnes, J. C. (2017, January 10). *Blight-resistant American chestnut: Reintroduction of a Novel Organism*. Poster presented at the 8th Biennial Conference of the International Biogeography Society; Tucson, AZ.

Barnes, J. C. (2017, January 9). *Anticipating American chestnut Restoration*. Presentation at the National Nanotechnology Coordinated Infrastructure Winter School on Responsible Innovation and Social Studies of Emerging Technologies; Mesa, AZ.

Baltzegar, J., **Barnes, J. C.**, Elsensohn, J.E., Gutzmann, N., Jones, M.S., King, S., and Sudweeks, J. (2016, September 25). *Gene Drive Insects in Agriculture*. Poster presented at the XXV International Congress of Entomology; Orlando, FL.

Roberts, JP, **Barnes, J. C.**, Barnhill, SK, and Sudweeks, J. (2016, April 5). *The Genetically Modified American chestnut Tree and Surface Mine Reclamation: Modeling the Potential for Restoration*. Paper presented at the International Society for Forest Resource Economics; Raleigh, NC.

Barnes, J. C. (2016, March 30). *Commodification and Conservation: A Political Ecology of Forest Tree Genomics*. Paper presented at the American Association of Geographers Annual Meeting; San Francisco, CA.

Barnes, J. C. (2015, November). *The Wisdom of Crowds: Neoliberalism and the GM American chestnut*. Paper presented at the Society for the Social Studies of Science (4S) Annual Meeting; Denver, CO.

Barnes, J. C. (2015, September 17). *Nascent Narratives of Responsibility in the Governance of Genetically Modified Trees*. Paper presented at the Atlanta Conference on Science and Innovation Policy; Atlanta, GA.

Barnes, J. C. (2015, August 18). *Neoliberalism and Narratives in the Landscape of Genetically Modified Trees*. Paper presented at the North Carolina State University MEAS-FER Symposium; Raleigh, NC. (People's Choice Award for Best Presentation)

CONFERENCES AND WORKSHOPS ATTENDED

National Nanotechnology Coordinated Infrastructure Winter School on Responsible Innovation and Social Studies of Emerging Technologies (January 3-10, 2017) Mesa, AZ

The American Chestnut Foundation Annual Meeting (November 10-11, 2016) Louisville, KY

Environmental Release of Engineered Pests: Building an International Governance Framework; (October 5-6, 2016) Raleigh, NC

Roadmap to Gene Drives: A Deliberative Workshop to Develop Frameworks for Research and Governance (February 24-26, 2016) Raleigh, NC

USDA Stakeholder Workshop on Coexistence (March 12 – 13, 2015) Raleigh, NC

GE @ NCSU Symposium (April 28, 2015) Raleigh, NC

The American Chestnut Foundation Annual Meeting with the Schatz Tree Genetics Colloquium (October 23-24, 2015) State College, PA

2015 Association of American Geographers Annual Meeting (April 23-26, 2015) Chicago, IL

NCSU Graduate Professional Development Workshop: Intersections of Genetics and Society (September 19, 2014) Raleigh, NC

CIMMYT Transgenics and Society Symposium (July 2014) Texcoco, Mexico

CAMPUS AND DEPARTMENTAL TALKS

Sociotechnical futures and the politics of American chestnut restoration. (2017, April 12). Emerging Technologies and Society. North Carolina State University.

Engineering futures in biodiversity conservation. (2017, April 11). Genetic Engineering and Society Colloquium. North Carolina State University.

The American chestnut: Past, present, future. (2017, April 3). Forest History, Technology and Society. North Carolina State University.

Conservation and commodification of American chestnut. (2016, April 13). Introduction to Science and Technology Studies. North Carolina State University.

TEACHING EXPERIENCE

Instructor, North Carolina State University, Raleigh, NC, Fall 2018
Conservation of Biological Diversity

Teacher, Huntington Learning Center, Raleigh, NC, 2013 to 2014
Math, reading and writing, biology, and ACT/SAT Prep

Interim Teacher, Cedar Creek Middle School, Louisburg, NC, Fall 2013
8th Grade Science

Instructor, Duke University Talent Identification Program, Durham, NC, Summer 2012
Science on the Appalachian Trail; Marine Biology: Estuaries & Marshes

Teaching Assistant, Brigham Young University, Provo, UT, Fall 2011
Population-Level Health Promotion Interventions

Teacher, Sylvan Learning Center, Durham, NC, 2009 to 2010
Advanced math, academic reading and writing, study skills, and ACT/SAT Prep

Teaching Assistant, Duke University, Durham, NC, Fall 2009
Marine Megafauna

Supplemental Instruction Leader, Mercer University, Academic Resource Center, 2008 to 2009
Introduction to Biology I & II

Lab/Teaching Assistant, Mercer University, Department of Biology, 2008 to 2009
Introduction to Biology I & II

OUTREACH

Ecology Graduate Student Recruitment Day (February 16, 2017)

Museum of Life + Science, Building with Biology (August 30, 2015)

Museum of Life + Science, Science of Sour (July 23, 2015)