

Michael A. Levy

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Education

2017 (anticipated) PhD in Ecology: Environmental Policy and Human Ecology, University of California, Davis

2012 MS in Biology, West Virginia University

2004 BS in Chemistry, Fort Lewis College

Research Experience

Mental Models of Sustainable Agriculture UC Davis & UC ANR, 2015 -

Participatory workshops around California to elicit experts' causal models of sustainable agriculture. Analysis examines variance in model structure and content across geography, experience, and profession. Implications of policy proposals are simulated via consensus model as transition matrix.

Inference from Statistical Models of Networks UC Davis, 2015 -

Analytical and computational evidence for proper interpretation of estimates on geometrically weighted statistics of exponential random graph models.

Dynamics of Fire, Vegetation, and Human Behavior SESYNC, 2014 -

Coupled agent-based model of homeowner adoption of fire-defensive behavior and landscape-scale fire and vegetation dynamics in wildland-urban interface of the Cleveland National Forest in Southern California. Delineate trajectories of fire dynamics for various climate scenarios and management interventions.

Farmer Learning Networks, Cooperation, and Environmental Management UC Davis, 2013 -

Information networks of winegrowers contain abundant structures that are adaptive to solve cooperation dilemmas. Growers use social ties to seek innovation and to build trust for environmental management. Adoption of some sustainability certifications is facilitated by social processes while others are economically driven.

Ecosystem Recovery After Surface Mining West Virginia University, 2010 - 2012

Some aspects of ecosystem structure recover rapidly after reclamation; however, plant and fungal communities remain severely altered in the medium term.

Awards

- 2015 Professors for the Future Fellowship, UC Davis
- 2014 Fire on the Fringe, SESYNC Graduate Student Pursuit (co-PI)
- 2014 Sustainable Agriculture Scholarship, Annie's Homegrown
- 2014 Henry A. Jastro Research Award, UC Davis College of Agricultural and Environmental Sciences
- 2012 Climate Change, Water, and Society, Integrative Graduate Education Research Traineeship, National Science Foundation
- 2012 Ecology Fellowship, UC Davis Graduate Group in Ecology
- 2011 Graduate Student Policy Award, Ecological Society of America
- 2009 HERF Supplementary Fellowship, West Virginia University
- 2004 Senior Award, Fort Lewis College, Department of Chemistry
- 2003 Callendar Chemistry Scholarship, Fort Lewis College
- 2003 Research Experience for Undergraduates, National Science Foundation

Publications

PEER-REVIEWED PUBLICATIONS

- In review** Mark Lubell, **Michael Levy**, Aseem Prakash, and Matt Potoski. Clubs Old and New: Social Networks and Participation in Voluntary Environmental Programs.
- 2014 **Michael Levy** and Jonathan Cumming. Development of soils and communities of plants and arbuscular mycorrhizal fungi on West Virginia surface mines. *Environmental Management* 54(5): 1153-1162.

NON-REFEREED PUBLICATIONS

- 2015 **Michael Levy** and Matthew B. Hoffman. Lodi rules for sustainable winegrowing certification program, 2015 report.
- 2013 **Michael Levy**. Integrating science, management, and policy for the future of water in California. *Eos*, 94(29): 256
- 2013 **Michael Levy**, Matthew B. Hoffman, A. Vicken Hillis, and Mark N. Lubell. Sustainability certification: Why do vineyards participate? Policy Brief for UC Davis Policy Institute.
- 2013 **Michael Levy**. Measure I is our best option for necessary water improvements. *The Davis Enterprise*, February 10, 2013: A15
- 2010 - 2012 **Michael Levy**. Weekly environmental science and policy opinion column. *The Daily Athenaeum*, 124(12) - 125(94)

Presentations

INVITED TALKS

- 2015 Michael Levy.** Predicting interdependence: Inference from exponential random graph models of social networks. Statistical Methodology in the Social Sciences Conference, UC Davis Institute for Social Sciences, Davis CA
- 2015 Michael Levy.** Exponential random graph models for statistical inference on networks. Statistical Sciences Symposium, UC Davis Department of Statistics, Davis CA
- 2014 Michael Levy.** dpLyr: Data manipulation in R made easy. Davis R-Users' Group, Davis CA

PROFESSIONAL CONFERENCES

- 2015 Michael Levy** and Mark Lubell. Innovation and cooperation in the structure of agriculture information networks. American Political Science Association Annual Meeting, San Francisco CA
- 2015 Michael Levy** and Mark Lubell. Innovation and cooperation in agricultural information networks. Political Networks Conference, Portland, OR
- 2015 Michael Levy.** Cultural multilevel selection and social networks in sustainable viticulture. Biennial Global Conference: International Association for the Study of the Commons, Edmonton AB, Canada
- 2014 Michael Levy.** Cultural diffusion and polarization: An agent-based model. Center for Advanced Modeling Graduate Workshop, Baltimore MD
- 2014 Michael Levy,** Matthew B. Hoffman, A. Vicken Hillis, and Mark N. Lubell. Who joins the club? Learning pathways for sustainable agriculture certification. Environmental Politics Conference, Santa Barbara CA
- 2014 Michael Levy,** Matthew B. Hoffman, A. Vicken Hillis, and Mark N. Lubell. Sustainable agriculture certification: Who's joining? Interdisciplinary Graduate and Professional Symposium, Davis CA
- 2011 Michael Levy** and Jonathan R. Cumming. Development of soil, biodiversity, and arbuscular mycorrhizae on pasture-reclaimed surface mines in Appalachia. Annual Meeting of the Ecological Society of America, Austin TX
- 2011 Michael Levy** and Jonathan R. Cumming. What happens after the mining is done? Development of soils and biodiversity on reclaimed surface mines. Science and Technology in Society, Morgantown WV

OUTREACH PRESENTATIONS

- 2014 Michael Levy.** Environmental certifications among viticulturists. Lodi Winegrape Commission, Davis CA

- 2012 Michael Levy.** Stripping wild and wonderful: Truths and myths about surface mining in WV. Science on Tap public science forum, Morgantown WV
- 2011 Michael Levy** and Terence Houston. Weighing the long-term implications of mountaintop removal mining. Ecological Society of America podcast, The Ecologist Goes To Washington
- 2011** Bob H. Baber, Ted Boettner, **Michael Levy**, and Jeff G. Skousen. Coal: The lifeblood of West Virginia? Democracy Matters panel discussion, Morgantown WV

Teaching Experience

UNIVERSITY OF CALIFORNIA, DAVIS

- 2015** Instructor, R Bootcamp. Developed and taught one-week, 30-classroom hour intensive introduction to the statistical programming language R. Attended by 200 graduate students and post-docs
- 2015** Co-Instructor, Data Carpentry Workshop
- 2013** Organizer and Lead, Seminar on agent-based models for the study of coupled human and natural systems

INTERUNIVERSITY CONSORTIUM FOR POLITICAL AND SOCIAL RESEARCH (ICPSR)

- 2015** Teaching Assistant, Introduction to Social Network Analysis in R

WEST VIRGINIA UNIVERSITY

- 2011** Teaching Assistant, Environmental Biology Laboratory
- 2010 - 2011** Teaching Assistant, Biology Capstone Course: Total Science Experience
- 2009 - 2010** Teaching Assistant, Principles of Biology Laboratory

OTHER

- 2008 - 2009** English as a Foreign Language Teacher, Dogye Elementary School, Gangwon-do South Korea
- 2007 - 2008** MCAT Instructor, The Princeton Review, Boulder CO
- 2005 - 2006** English as a Foreign Language Teacher, Han Yun Sik English Academy, Busan South Korea

FORT LEWIS COLLEGE

- 2004** Teaching Assistant, Organic Chemistry Laboratory
- 2003** Teaching Assistant, Analytical Chemistry Laboratory
- 2001 - 2003** Teaching Assistant, General Chemistry Laboratory

Additional Education

- 2015** Instructor training. Software Carpentry, Davis CA
- 2014** Social Media and Socio-Environmental Systems. SESYNC workshop, Annapolis MD
- 2013** Multi-platform International Summer School on Agent-Based Modeling and Simulation. Cirad, Montpellier France
- 2011** Becoming the Messenger. Science communication training, National Science Foundation, Morgantown WV
- 2011** Lobbying Congress for Science, Biological Ecological Sciences Coalition, Washington DC

Service

UC DAVIS

- 2015 -** Mentor, Dustan Li Undergraduate Research Project
- 2015 -** Co-administrator, Davis R Users' Group
- 2013 -** Member, Admissions Committee, Graduate Group in Ecology
- 2015** Founder, Interdisciplinary Network Science Group
- 2015** Graduate Student Representative, Climate Policy Faculty Search Committee, Department of Environmental Science and Policy
- 2013** Mentor, AggieMentors high school student research program
- 2013** Organizer, Future of Water in California Conference
- 2013** Delegate, UC Day in DC

WEST VIRGINIA UNIVERSITY

- 2010 - 2011** Mentor, Kylen Whipp Undergraduate Honors Thesis

FORT LEWIS COLLEGE

- 2003 - 2004** President, Chemistry Club
- 2002 - 2004** Co-Founder, Green Chemistry
- 2002 - 2004** President and Vice President, Uniting Students through Wellness