

# Michael A. Levy

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## Education

- 2017** PhD in Ecology: Environmental Policy and Human Ecology, University of California, Davis (expected)
- 2012** MS in Biology, West Virginia University
- 2004** BS in Chemistry, Fort Lewis College

## Publications

### REFEREED PUBLICATIONS

- 2016** **Michael Levy**. gwdegree: Improving interpretation of geometrically-weighted degree estimates in exponential random graph models. *The Journal of Open Source Software* 1(3).
- 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.

### MANUSCRIPTS IN REVIEW

**Michael Levy** and Mark Lubell. Structural signatures of innovation, cooperation, and boundary spanning in agriculture knowledge networks.

Marco Bastos, Carlo Piccardi, **Michael Levy**, Neil McRoberts, and Mark Lubell. Core-periphery or decentralized? How centralized networks emerge from sharing specialized agriculture information.

### MANUSCRIPTS IN PREPARATION

**Michael Levy**, Mark Lubell, Philip Leifeld, and Skyler Cramner. Use and interpretation of geometrically weighted degree in exponential random graph models.

**Michael Levy**, Patrick Bitterman, Kenny Wallen, Katie Lyon, Ellen Esch, and Michael Saha. Generation of an empirically based agent population for a coupled model of fire and homeowner behavior in the wildland-urban interface.

Mark Lubell, **Michael Levy**, Aseem Prakash, and Matt Potoski. Clubs old and new: Social networks and participation in voluntary environmental programs.

## POLICY AND OUTREACH PUBLICATIONS

- 2016 Michael Levy**, Neil McRoberts, and Mark Lubell. Pillars of sustainable agriculture. Policy brief for UC Division of Agriculture and Natural Resources.
- 2016 Michael Levy**, Neil McRoberts, and Mark Lubell. Mental models of sustainable agriculture. Policy brief for UC Division of Agriculture and Natural Resources.
- 2015 Michael Levy** and Matthew 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 Hoffman, Vicken Hillis, and Mark Lubell. Sustainability certification: Why do vineyards participate? Policy Brief for UC Davis Policy Institute for Energy, Environment and the Economy.
- 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).

## Awards

- 2016** Fire on the Fringe: A coupled agent-based model of homeowner and wildfire behavior in Southern California, National Socio-Environmental Synthesis Center (SESYNC) Graduate Research Fellow, \$2,000.
- 2016** Improving statistical inference on networks, Amazon Web Services Cloud Credits for Research Grant, \$703.
- 2016** Political Networks Conference Travel Grant, \$900.
- 2015** Professors for the Future Fellowship, \$3,000.
- 2014** Sustainable Agriculture Scholarship, Annie's Homegrown, \$2,500.
- 2014** Henry A. Jastro Research Award, UC Davis College of Agricultural and Environmental Sciences, \$1,500.
- 2012** Climate Change, Water, and Society, Integrative Graduate Education Research Traineeship, National Science Foundation, \$115,000.
- 2012** Ecology Fellowship, UC Davis, \$51,000.
- 2011** Graduate Student Policy Award, Ecological Society of America.
- 2009** HERF Supplementary Fellowship, West Virginia University, \$2,000.

## Presentations

### PROFESSIONAL CONFERENCES

- 2016 **Michael Levy**. Teaching R to 200 people in a week. International R User Conference, Stanford, CA.
- 2016 **Michael Levy**, Mark Lubell, Philip Leifeld, Skyler Cranmer. Interpretation of geometrically weighted degree estimates in exponential random graph models. Political Networks Conference, Saint Louis, MO.
- 2016 **Michael Levy**. Mental models of sustainable agriculture. Duck Family Graduate Workshop on Environmental Politics and Governance, Seattle, WA.
- 2016 **Michael Levy**, Mark Lubell, Philip Leifeld, Skyler Cranmer. Estimating and interpreting geometrically weighted statistics in exponential random graph models. Midwest Political Science Association Conference, Chicago, IL.
- 2016 **Michael Levy**. Mental models of sustainable agriculture. Sunbelt Social Network Conference, Newport Beach, CA.
- 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.
- 2014 **Michael Levy**. Cultural diffusion and polarization: An agent-based model. Center for Advanced Modeling Graduate Workshop, Baltimore, MD.
- 2014 **Michael Levy**, Matthew Hoffman, Vicken Hillis, and Mark Lubell. Who joins the club? Learning pathways for sustainable agriculture certification. Environmental Politics Conference, Santa Barbara, CA.
- 2011 **Michael Levy** and Jonathan 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.

### OUTREACH PRESENTATIONS

- 2016 **Michael Levy**. Automation, lapply, and custom functions in R. Davis R Users' Group, Davis, CA.
- 2015 **Michael Levy**. Exponential random graph models for statistical inference on networks. Statistical Sciences Symposium, UC Davis Department of Statistics, Davis, CA.
- 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**. ERGM tutorial. UC Davis Interdisciplinary Network Science Group, Davis, CA.
- 2014 **Michael Levy**. Environmental certifications among viticulturists. Lodi Winegrape Commission, Davis, CA.
- 2014 **Michael Levy**. dplyr: Data manipulation in R made easy. Davis R Users' Group, Davis, CA.
- 2012 **Michael Levy**. Stripping wild and wonderful: Truths and myths about surface mining in West Virginia. 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 Baber, Ted Boettner, **Michael Levy**, and Jeff Skousen. Coal: The lifeblood of West Virginia? Democracy Matters panel discussion, Morgantown, WV.

## Teaching Experience

### UNIVERSITY OF CALIFORNIA, DAVIS

- 2016 Teaching Assistant, Statistical Rethinking: PhD-level course on applied computational Bayesian data analysis, with Richard McElreath.
- 2015 Developer and Instructor, R Bootcamp: Week-long intensive introduction to the statistical programming language R for 200 graduate students and postdoctoral scholars.
- 2013 Organizer and Lead, Seminar on agent-based models for the study of coupled human and natural systems.

### SOFTWARE AND DATA CARPENTRY

- 2016 Developer and Co-Instructor, Pilot Social Sciences Data Carpentry Workshop, UC Davis.
- 2016 Co-Instructor, Software Carpentry Workshop, Stanford University.
- 2016 Co-Instructor, Software Carpentry Workshop, UC Davis.
- 2015 Co-Instructor, Data Carpentry Workshop, UC Davis.

### INTERUNIVERSITY CONSORTIUM FOR POLITICAL AND SOCIAL RESEARCH (ICPSR)

- 2015 Teaching Assistant, Introduction to Social Network Analysis in R, with Lorien Jasny.

### WEST VIRGINIA UNIVERSITY

- 2011 Teaching Assistant, Environmental Biology Laboratory.
- 2010 - 2011 Teaching Assistant, Total Science Experience: Mentored small group research projects from proposal to presentation.
- 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.

## Additional Education

**2016** Text Analytics, Interuniversity Consortium for Political and Social Research, Ann Arbor, MI.

**2015** Seminar on College Teaching, Center for Educational Effectiveness, Davis, CA.

**2015** Instructor training, Software Carpentry, Davis, CA.

**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** - Co-Administrator, Davis R Users' Group.

**2015** - Founder & Administrator, Interdisciplinary Network Science Group.

**2014** - Maintainer, Statistics Courses Guide, Ecology Graduate Student Association.

**2013** - Member, Admissions Committee, Graduate Group in Ecology.

**2015** Graduate Student Representative, Climate Policy Faculty Search Committee, Department of Environmental Science and Policy.

**2015** Mentor, Dustan Li Undergraduate Research Project.

**2013** Mentor, AggieMentors high school student research program.

**2013** Co-organizer, Future of Water in California Conference.

**2013** Delegate, UC Day in DC.

### WEST VIRGINIA UNIVERSITY

**2010 - 2011** Mentor, Kylene Whipp Undergraduate Honors Thesis.