

February 2016

SAINATH SURYANARAYANAN

Department of Community & Environmental Sociology
Morgridge Institute for Research
University of Wisconsin-Madison, Madison, Wisconsin, USA
Phone: (608) 698-0592; E-mail: ssuryanaraya@wisc.edu

PERSONAL INFORMATION

Citizenship: United States

EDUCATION

2009 Ph.D., University of Wisconsin-Madison
Major: Zoology
Minors: Science & Technology Studies; Entomology

2002 Master of Science, University of Wisconsin-Madison
Major: Molecular & Cellular Pharmacology

2000 Bachelor of Science, St. Andrews Presbyterian College, NC
Majors: Biology (Honors), Chemistry

EMPLOYMENT

January 2016- Morgridge Institute for Research, UW-Madison
Position: Assistant Scientist of Biology & Society

August-December 2015 Holtz Center for Science & Technology Studies, UW-Madison
Position: Associate Lecturer

January-May 2015 Holtz Center for Science & Technology Studies, UW-Madison
Position: Associate Lecturer

September 2014- Community & Environmental Sociology, UW-Madison
Position: Assistant Scientist

September 2009- August 2014 Community & Environmental Sociology, UW-Madison
Position: Research Associate,

January-May 2013 & January-May 2014 Community & Environmental Sociology, UW-Madison
Position: Lecturer

February 2010-2011 Department of Entomology, University of Minnesota
Position: Research Associate

January-May 2009 Holtz Center for Science & Technology Studies, UW-Madison

Position: Associate Lecturer

August-December 2008 Department of Wildlife Ecology, UW-Madison
Position: Teaching Assistant

January 2004- May 2008 Department of Zoology, UW-Madison
Position: Teaching Assistant

HONORS/AWARDS/FELLOWSHIPS

July 2015- June 2016 Interdisciplinary Research Award, Office of the Vice
Chancellor for Graduate Research & Education, UW-
Madison, 'The War Between Amaranth and Soy: A History of
Interspecies Resistance to Roundup Ready Soy in Argentina
and Paraguay,' K.O. Beilin (PI), S. Suryanarayanan (Co-PI),
\$54,564

June-August 2013, 2014 Carson Fellow, Rachel Carson Center for Environment &
Society, Ludwig Maximilian University, Germany, 'Be(e)ing
Human: The Socio-historical Dimensions of Collapsing
Beehives,' \$27,594

September 2013-2015 National Science Foundation, Science, Technology & Society,
'A Transdisciplinary Deliberative Model for Just Research
and Policy: Toward Resolving the Crisis of Vanishing Insect
Pollinators,' D.L. Kleinman (PI), S. Suryanarayanan (Key
Personnel), \$303,650

September 2009-
March 2013 National Science Foundation, Science, Technology & Society,
'Finding Sustainable Solutions to Honey Bee Health,' D.L.
Kleinman (PI), S. Suryanarayanan (Key Personnel),
\$215,421

2007-2009 National Science Foundation, Division of Integrative
Organismal Biology, Doctoral Dissertation Improvement
Grant, R.L. Jeanne (PI), S. Suryanarayanan (Co-PI), \$6,270

2008 College of Letters & Science Teaching Fellow,
University of Wisconsin-Madison, \$1,000

BOOK

Suryanarayanan, S. and Kleinman, D.L. Forthcoming. *Vanishing Bees: Science, Politics and
Honey Bee Health*. New Jersey: Rutgers University Press.

PEER-REVIEWED ARTICLES AND CHAPTERS

- Suryanarayanan, S.** and Beilin, K.O. Forthcoming. 'Still Different?: Biotechnology, Politics and Culture in Spain', in *Ethics of Life: Contemporary Iberian Debates*, eds. K. Beilin and W. Vistienez, University of Minnesota Press, 2016, *Hispanic Issues On Line*.
- Suryanarayanan, S.** (2015) 'Pesticides and Pollinators: A Context-sensitive Policy Approach', in *Bee Health at the Intersection of Society and Science*, Eds. C. Grozinger and J. Evans, *Current Opinion in Insect Science* 10: 149-155.
- Kleinman, D.L. and **Suryanarayanan, S.** (2015) 'Ignorance and Industry: Agrichemicals and honey bee deaths', in *Routledge International Handbook of Ignorance Studies*, eds. M. Gross and L. McGoey, Routledge: 183-191.
- Suryanarayanan, S.** (2014) 'On an Economic Treadmill of Agriculture; Efforts to Resolve Pollinator Decline', in *Controversies in Science and Technology: From Sustainability to Surveillance*, Volume 4, eds. D.L. Kleinman, K. Cloud-Hansen and J. Handelsman, New York: Oxford University Press, 259-268.
- Suryanarayanan, S.**, and Kleinman, D.L. (2014) 'Beekeepers' Collective Resistance and the Politics of Pesticide Regulation in France and the United States', in *Fields of Knowledge: Science, Politics and Publics in the Neoliberal Age*, eds. Scott Frickel, David J. Hess, Emerald Group Publishing Limited, *Political Power and Social Theory* 27: 89-122.
- Suryanarayanan, S.** (2013) 'Balancing Control and Complexity in Field Studies of Neonicotinoids and Honey Bee Health', *Insects* 4(1): 153-167.
- Suryanarayanan, S.**, and Kleinman, D.L. (2013) 'B(e)coming Experts: The Controversy Over Insecticides in the Honey Bee Colony Collapse Disorder', *Social Studies of Science* 43(2): 215-240.
- Kleinman, D.L. and **Suryanarayanan, S.** (2013) 'Dying Bees and the Social Production of Ignorance', *Science, Technology & Human Values* 38(4): 492-517.
- Suryanarayanan, S.**, and Kleinman, D.L. (2011) 'Disappearing Bees and Reluctant Regulators', *Issues in Science and Technology* 27(4): 31-36.
- Jeanne, R.L. and **Suryanarayanan, S.** (2011) 'A New Model for Caste Development in Social Wasps', *Communicative & Integrative Biology* 4(4): 373-377.
- Suryanarayanan, S.**, Hermanson, J.C., and Jeanne, R.L. (2011) 'A Mechanical Signal Biases Caste Development in a Social Wasp', *Current Biology* 21(3): 231-235.
- Suryanarayanan, S.**, Hantschel, A.E., Torres, C.G., and Jeanne, R.L. (2011) 'Changes in the Temporal Pattern of Antennal Drumming Behavior Across the *Polistes fuscatus* Colony Cycle (Hymenoptera: Vespidae)', *Insectes Sociaux* 58(1): 97-106.
- Suryanarayanan, S.**, and Jeanne, R.L. (2008) 'Antennal drumming, Trophallaxis, and Colony Development in the Social Wasp *Polistes fuscatus* (Hymenoptera: Vespidae)', *Ethology* 114: 1201-1209.
- Huang, T.T., Feinberg, S.L., **Suryanarayanan, S.**, and Miyamoto, S. (2002) 'The Zinc Finger Domain of NEMO is Selectively Required for NF-kappa B Activation by UV Radiation and Topoisomerase Inhibitors', *Molecular Cell Biology* 22(16): 5813-25.

OTHER PUBLICATIONS

- Suryanarayanan, S.** (2015) 'Relations between Scientists and Animals in Experimental

Systems', **Invited**, *Seeing the Woods: A Blog by the Rachel Carson Center for Environment & Society*. Available at:

<http://seeingthewoods.org/2015/01/15/making-tracks-sai-suryanarayanan/>

Kleinman, D.L. and **Suryanarayanan, S.** (2013) 'Honey Bees Under Threat: A Political Pollinator Crisis', **Invited**, *The Guardian* (UK), 8 May. Available at:

<http://www.guardian.co.uk/science/political-science/2013/may/08/honey-bees-threat-political-pollinator-crisis>

WORKS IN PROGRESS

Suryanarayanan, S. and Kleinman, D.L. A Transdisciplinary Experiment: Deliberating Just Research on Vanishing Bees.

Suryanarayanan, S. and Beilin, K.O. Rise of the Resistant: The War Between Amaranth and Transgenic Soy in Argentina.

Suryanarayanan, S. The Anthropological Machine in Experimental Systems of the Life Sciences.

MEDIA COVERAGE OF RESEARCH

1. Stentz, Molly. 2013. "The Mystery of Dying Bees: Madison Beekeepers, UW Researchers Look For Answers", *Isthmus* (Cover Story), June 13.
<http://www.thedailypage.com/daily/article.php?article=40154>
2. Sakai, Jill. 2013. "Protecting Our Pollinators", *Grow: Wisconsin's Magazine for the Life Sciences* (Featured Article), 6(3): 16-21.
3. WORT 89.9FM. '8 O'Clock Buzz: Bees and Agrichemicals, the Food Supply, Politics, Sociology and International Law,' May 13, 2013. www.wortfm.org/bees-and-agrichemicals-the-food-supply-politics-sociology-and-international-law/
4. WISC-TV. "Live at Five: UW Researchers Study Honey Bee Deaths", May 13, 2013.
<http://video.channel3000.com/watch.php?id=49808>
5. Research Highlights. 2011. "Drummed Into Submission", *Nature* 470 (February 3): 9.
6. Sakai, Jill. 2011. "Marching to the Music", *Grow*, Summer Issue.
7. Frail, T.A. et al. 2011. "Drum Beat", *Smithsonian Magazine*, April.
8. "Drumming Wasps", *Science Update: The Science Radio News Feature of the AAAS*, February 17, 2011. www.scienceupdate.com/2011/02/drumming-wasps/
9. University of Wisconsin News, "Rhythmic Vibrations Guide Caste Development in Social Wasps", January 24, 2011. www.news.wisc.edu/18877

SELECTED PRESENTATIONS AND DELIVERED PAPERS

- 1) "A Transdisciplinary Deliberative Model for Just Research on Vanishing Bees", Annual Meeting of the Society for the Social Studies of Science, Denver, Colorado. November 2015.
- 2) "Power Conundrum: Industry Collaboration on Honey Bee Health", **Invited** Keynote Panelist, Collaboration Conundrum Conference, University of Notre Dame, South Bend, Indiana. November 2015.
- 3) "A Transdisciplinary Deliberative Model for Just Research on Vanishing Bees", with Daniel Lee Kleinman, Holtz Center for Science & Technology Studies, UW-Madison. April 2015.

- 4) "Understanding Complex Environmental Problems: The Case of Vanishing Bees", with Daniel Lee Kleinman, Arboretum Winter Enrichment Series, UW-Madison. February 2015.
- 5) "Vanishing Bees: The Science and the Politics", with Daniel Lee Kleinman at the Community & Environmental Sociology Collective, UW-Madison. November 2014.
- 6) "Toward Understanding the Complexity of Honey Bee Declines", Invited, Section Symposium "Buzz-kills: The Genomics and Ecology of Stress in Pollinators", Annual Meeting of the Entomological Society of America, Portland, Oregon. November 2014.
- 7) "Still Different?: Biotechnology, Politics and Culture in Spain", with Katarzyna Beilin at the Mid-America Conference on Hispanic Literature, Panel on 'Debates on Ethics of Life in Contemporary Spain', University of Wisconsin-Madison. October 2014.
- 8) "Vanishing Bees in Social Space: The Politics of Apiary Knowledge", **Invited** Panelist with Jake Kosek, UC-Berkley; Sarah Watson, University of Kentucky; Chloe Silverman, Drexel University; Jennie Durant, UC-Berkley, Annual Meeting of the Association of American Geographers, Tampa, Florida. April 2014.
- 9) "Vanishing Bees and Climate Change", Guest Lecture, Environmental Studies: The Social Perspective, Nelson Institute for Environmental Studies, University of Wisconsin-Madison. April 2014.
- 10) "The Controversy Over Systemic Insecticides and Vanishing Honey Bees", Guest Lecture, Pollination Biology course, Department of Entomology, University of Wisconsin-Madison. February 2014.
- 11) "No Trespassing! Going Trans- in a Still-Disciplinary World", **Invited**, Center for 21st Century Studies, Transdisciplinary Challenge Grant Program Seminar, University of Wisconsin-Milwaukee. November 2013.
- 12) "Incorporating STS into careers in a variety of fields", Panel discussion, **Invited**, Holtz Center for Science & Technology Studies Brown Bag Series, University of Wisconsin-Madison, WI. October 2013.
- 13) "Be(e)ing Human: A Social History of Collapsing Beehives in the United States", **Invited**, Rachel Carson Center for Environment & Society's Lunchtime Colloquium, Ludwig-Maximilian University, Munich, Germany. July 2013.
- 14) "Beekeepers' Collective Resistance and the Politics of Pesticide Regulation in France and the United States", **Invited** with Daniel Lee Kleinman at the Political Sociology of Science Workshop, University of Wisconsin-Madison. June 2012.
- 15) "Finding Sustainable Solutions to Honey Bee and Pollinator Health", **Invited**, Entomology Seminar Series, Department of Entomology, University of Wisconsin-Madison. April 2012.
- 16) Panel Debate on Primates in Biomedical Research, **Invited**, Undergraduate course in Human/Animal Relationships. Department of Zoology, University of Wisconsin-Madison. April 2012.
- 17) Animal Studies Panel Discussion of the film "Divine Pig", **Invited**, 'Tales from Planet Earth' Film Festival. Center for Culture, History and Environment, University of Wisconsin-Madison. March 2012.
- 18) "The Human Dimensions of Honey Bee Health", **Invited**, Winter Conference of the Dane County Beekeepers' Association, Madison, WI. February 2012.
- 19) "Bioscientific Fields and Human/Animal Boundaries", **Invited**, 'Disciplines of Animal Studies' Colloquium, University of Wisconsin-Madison, WI. November 2011.

- 20) "B(e)ing Experts: Science, Beekeeping and the Politics of Expertise", Annual Meeting of the Society for the Social Studies of Science, Cleveland, OH. November 2011.
- 21) "B(e)coming Experts: The Controversy Over Insecticides in the Honey Bee Colony Collapse Disorder", **Invited**, Holtz Center for Science & Technology Studies Brown Bag Series, University of Wisconsin-Madison, WI. October 2011.
- 22) "Vanishing Bees: Colony Collapse Disorder and the Social Production of Ignorance", **Invited** with Daniel Lee Kleinman, Center for Humanities, University of Wisconsin-Madison, WI. February 2011.
- 23) "Assessment of Risk to Honey Bees: Pesticides and Floral Landscapes", Co-presented with Vera Krischik. Minnesota Honey Producers Association Annual Meeting, Mankato, MN. July 2010.
- 24) "Honey Bees and Colony Collapse Disorder" Guest Lecture, Sociology of Science course, Department of Sociology, University of Wisconsin-Madison, WI. February 2010.
- 25) "Finding Sustainable Solutions to Honey Bee Health", with Daniel Lee Kleinman, Annual Meeting of the Society for the Social Studies of Science, Washington DC. October/November 2009
- 26) "Finding Sustainable Solutions to Honey Bee Health", 4th International Conference on Interdisciplinary Social Sciences, Athens, Greece. July 2009.
- 27) "The Human/Animal Divide", **Invited** with Mario Ortiz-Robles. 'What is Human?' Friday Lunch Series, Center for Humanities, University of Wisconsin-Madison. March 2009.
- 28) "Rethinking Nature: Implications for the Environmental Sciences" Guest Lecture, 'Extinction of Species' course, Department of Wildlife Ecology, University of Wisconsin-Madison. December 2008.
- 29) "Triage of Humans, Animals and Insects", Panelist with Mario Ortiz-Robles and Hans Adler, 'What is Human?' Symposium, Center for Humanities, University of Wisconsin-Madison. March 2008.
- 30) "Violence On the Human and Non-human Other in Modern Technoscientific Cultures", **Invited**, Technology and Governance Conference, Indian Institute of Management, Bangalore, India. December 2007.
- 31) "Vibrational signals influence development in *Polistes* wasps", **Invited** with Robert L. Jeanne, Symposium for 'Honoring Hölldobler and Wilson by Celebrating the Social Insects', Annual Meeting of the Entomological Society of America, Indianapolis, IN. December 2009.
- 32) "A Novel Role for Vibrational Signaling in a Social Insect", **Invited** with Robert L. Jeanne, Evolutionary Seminar Series, University of Wisconsin-Madison. March 2009.
- 33) "Learning in Insects", Guest Lecture, Insect Behavior course, Department of Entomology, University of Wisconsin-Madison. February 2009.
- 34) UW Teaching Academy Winter Retreat, **Invited**, University of Wisconsin-Madison. January 2009.
- 35) "Acclimating International TAs", College of Letters & Science Teaching Assistant Workshops, University of Wisconsin-Madison. August 2008.
- 36) "A Primer Model for the Onset of Antennal Drumming in *Polistes*", Annual Entomological Society of America meeting, San Diego, CA. December 2007.

COURSES TAUGHT

2015	First-Year Interest Groups (FIGs), 'Where Science Meets Society' (STS 201), Holtz Center for Science & Technology Studies, UW-Madison
2015	'Science, Technology and Medicine in Society' (STS 901), Graduate Seminar Holtz Center for Science & Technology Studies, UW-Madison
2013, 2014	'Environment, Natural Resources & Society' (CES 248), Dept. of Community & Environmental Sociology, UW-Madison
2009	'Where Science Meets Society' (STS 201), Holtz Center for Science & Technology Studies, UW-Madison
2008	'Extinction of Species' (ES 360), Dept. of Wildlife Ecology, UW-Madison
2004-2008	'Animal Biology Laboratory' (ZOO 102), Dept. of Zoology, UW-Madison

UNDERGRADUATE MENTORING: STUDENT RESEARCH

Diane Nhiu (2015-2016, Undergraduate Research Scholar); Heide Knoppke-Wetzel (2015-2015, Undergraduate Research Scholar); Gbemisola Famule (2014, Community & Environmental Sociology); Noah C. Pearce (2011, Sociology); Carlos Torres (2007-2008, Psychology and The McNair Scholars Program for low-income, first-generation, and underrepresented undergraduate students); Amy Hantschel (2007-2008, Zoology); Theresa Cira (2008, Entomology); Scott Bramwell (2007, Zoology); Gerald Elliott (2007, Zoology); Alex Heeren (2007, Zoology); Julia Hoeh (2007, Zoology); Carl Kaiser (2007, Zoology); Victoria Konicek (2007, Zoology); Nicholas Propson (2007, Zoology); Matthew Ruebl (2007, Zoology); Adam Stone (2007, Zoology); Lindsay Traeger (2007, Zoology); Jeremy Tupper (2007, Zoology); Megan Wanzek (2007, Zoology); Jessica Bartlett (2006, Zoology); Vanessa Machen (2006, Zoology); Jeff Rolling (2006, Zoology); Shail Shah (2006, Zoology); and Wa Vang (2006, Zoology).

SUPERVISION OF EMPLOYEES

Employee Position: Bee Research Assistant

Mark Evans (2014, Beekeeper), Kirsten King (2014, Badger Rock Elementary School teacher), Krysta Koralesky (2014, Graduate student, Environmental Studies, UW-Madison), Heather Swan (2014, Graduate student, English, UW-Madison)

Employee position: Ethnographer

Heather Swan (2014, Graduate student, English, UW-Madison)

Employee Position: Grader

Yifei Li (2013, Graduate student, Community & Environmental Sociology, UW-Madison), Caitlin Henning (2014, Graduate student, Agro-ecology Program, UW-Madison)

SYNERGISTIC ACTIVITIES

- Facilitator, Data Discussion Group, Wisconsin Institutes for Discovery, University of Wisconsin-Madison, August 2015-present.
- "New Materialities: Things, Objects, and Agency", Mellon Faculty Development Seminar led by Florence Bernault (History) and Frédéric Neyrat (Comparative Literature), Center for Humanities, University of Wisconsin-Madison, Spring 2016.
- "Representing Animals: Philosophy, History and Film", Mellon Faculty Development

Seminar led by Professor Mario Ortiz-Robles, Center for Humanities, University of Wisconsin-Madison, Fall 2014.

- “Environmental Studies in the Time of the Anthropocene”, Mellon Faculty Development Seminar led by Dr. Robert Nixon, Rachel Carson and Elizabeth Ritzmann Professor of English, Center for Humanities, University of Wisconsin-Madison, September-December 2013.
- Affiliate Member, Holtz Center for Science & Technology Studies, University of Wisconsin-Madison, 2014-present.
- Associate Staff, Center for Integrative Agricultural Systems, University of Wisconsin-Madison, January 2013-Present.
- Honorary Associate, Nelson Institute for Environmental Studies, University of Wisconsin-Madison, January 2013-Present.
- Collaborator with Dr. Russell Groves (Department of Entomology, UW-Madison) on a US Department of Agriculture Small Business Innovation Research Sub-Award from Orbital Technologies Corporation (Middleton, WI) to the University of Wisconsin-Madison, “Support for Orbitec’s LEDs for Managing Pest Insects in Greenhouses-Phase 2”
- Animal Studies, Mellon Faculty Seminar, Center for Humanities, University of Wisconsin-Madison, 2011-2012.
- Consultant, “Taking Animals Apart: Exploring Interspecies Enmeshment in a Biotechnological Era”, Graduate Student Workshop proposal funded by Holtz Center for Science & Technology Studies, University of Wisconsin-Madison, 2012.
- Invited Referee for: *Engaging Science, Technology & Society, Bulletin of Science, Technology & Society, Environmental Sociology, Controversies in Science & Technology, Insectes Sociaux, Naturwissenschaften, Journal of Insect Science, SpringerPlus.*
- Consultant, “Epigenetic, Transcriptomic, and Behavioral Impacts of a Maternal Signal During Wasp Caste Development”, National Science Foundation grant, PIs: Robert L. Jeanne (Emeritus Professor, Zoology, UW-Madison) and Amy Toth (Assistant Professor, Evolution, Ecology & Behavior, Iowa State University), April 2012-Present.

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- Society for the Social Studies of Science
- Association of American Geographers
- International Union for the Study of Social Insects