

September 2013

SAINATH SURYANARAYANAN

2919 Harvey St.
Madison, WI 53705
(608) 698-0592

Department of Community &
Environmental Sociology
University of Wisconsin-Madison
Madison, WI 53706
E-mail: ssuryanaraya@wisc.edu

PERSONAL INFORMATION

Nationality	Indian
Immigration Status	U.S. Permanent Residency

EDUCATION

Graduate	University of Wisconsin-Madison, Madison, WI Degree: Ph.D., August 2009 Major Field: Zoology Minor Fields: Science & Technology Studies; Entomology Thesis: Vibrational Behaviors in the Eusocial Wasps Degree: Master of Science, December 2002 Field: Molecular & Cellular Pharmacology Thesis: The Role of NEMO in DNA Damage Induced NF-kappaB Activation
Undergraduate	St. Andrews Presbyterian College, Laurinburg, NC Degree: Bachelor of Science, May 2000 Majors: Biology (Honors), Chemistry Honors Thesis: RNA Protein Kinase-Induced Activation of NF-kappaB

EMPLOYMENT

Research

June-August 2013, 2014	Carson Fellow Rachel Carson Center for Environment & Society Ludwig Maximilian University, München, Germany
September 2009-present	National Science Foundation Postdoctoral Researcher Department of Community & Environmental Sociology

University of Wisconsin-Madison, Madison, WI

February 2010-2011

US Department of Agriculture Postdoctoral Researcher

Department of Entomology
University of Minnesota, St. Paul, MN

July 2000-
December 2002

Research Assistant

Department of Pharmacology
University of Wisconsin-Madison, Madison, WI

Teaching

January-May 2013

Lecturer

‘Environment, Natural Resources & Society’
Department of Community & Environmental Sociology
University of Wisconsin-Madison

January-May 2009-

Associate Lecturer

‘Where Science Meets Society’
Holtz Center for Science & Technology Studies
University of Wisconsin-Madison

August-December 2008

Teaching Assistant

‘Extinction of Species’
Department of Wildlife Ecology
University of Wisconsin-Madison

January 2004-
May 2008

Teaching Assistant

‘Animal Biology Laboratory’
Department of Zoology
University of Wisconsin-Madison

January-June 2003

Project Assistant

‘Transforming Teaching Through Technology’
Division of Informational Technology
University of Wisconsin-Madison

HONORS/AWARDS/FELLOWSHIPS

Research

June-August 2013, 2014

Carson Fellow, Rachel Carson Center for Environment & Society, ‘Be(e)ing Human: The Socio-historical Dimensions of Collapsing Beehives,’ \$27,594

September 2013-2015

National Science Foundation, Science, Technology & Society

	Program, Standard Grant, ‘A Transdisciplinary Deliberative Model for Just Research and Policy: Toward Resolving the Crisis of Vanishing Insect Pollinators,’ D.L. Kleinman (PI), S. Suryanarayanan (Senior Personnel), \$303,650
September 2009-March 2013	National Science Foundation, Science, Technology & Society Program, Standard Grant, ‘Finding Sustainable Solutions to Honey Bee Health,’ D.L. Kleinman (PI), S. Suryanarayanan (Senior 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
2009	Graduate Student Travel Award, Holtz Center for Science & Technology Studies, University of Wisconsin-Madison, \$1,000
2007	John Jefferson Davis Fund for Research and Travel, Department of Zoology, University of Wisconsin-Madison, \$2,350
2007	Kinney Merit Travel Award, Department of Entomology, University of Wisconsin-Madison, \$600
2007	Vilas Travel Fellowship, Graduate School, University of Wisconsin-Madison, \$600
2003	Tinker-Nave Field Research Grant, Department of Latin American, Caribbean & Iberian Studies, University of Wisconsin-Madison

Teaching

2008	College of Letters & Science Teaching Fellow, University of Wisconsin-Madison, \$1,000
2008	MERLOT Classics Award to team led by Robert Jeanne and Jan Cheetham for developing “exemplary” online learning resource, ‘Connecting concepts: Interactive lessons in Biology’

WORKS IN PROGRESS

Science, Technology & Society

- 1) **Suryanarayanan, S.** Submitted. ‘Efforts to Resolve Pollinator Decline: On an Economic Treadmill of Agriculture’, Invited chapter, *Controversies in Science and Technology* (Oxford University Press). 15 manuscript pages.

- 2) **Suryanarayanan, S.**, and Kleinman, D.L. Submitted. 'Beekeepers' Collective Resistance and the Politics of Pesticide Regulation in France and the United States', Invited Paper, *Political Power and Social Theory*. 50 manuscript pages.
- 3) **Suryanarayanan, S.** and Kleinman, D.L. In Preparation. 'Vanishing Bees: Science, Politics, and the Case of Honeybee Health', Book Manuscript.

WORKS PUBLISHED

Postdoctoral research

- 1) 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>
- 2) **Suryanarayanan, S.** (2013) 'Balancing Control and Complexity in Field Studies of Neonicotinoids and Honey Bee Health', Invited, *Insects*. 4(1): 153-167.
- 3) **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.
- 4) Kleinman, D.L. and **Suryanarayanan, S.** (2013) 'Dying Bees and the Social Production of Ignorance', *Science, Technology & Human Values* 38(4): 492-517.
- 5) **Suryanarayanan, S.**, and Kleinman, D.L. (2011) 'Disappearing Bees and Reluctant Regulators', *Issues in Science and Technology* 27(4): 31-36.

Graduate research

- 1) Jeanne, R.L. and **Suryanarayanan, S.** (2011) 'A New Model for Caste Development in Social Wasps', Invited Review, *Communicative & Integrative Biology* 4(4): 373-377.
- 2) **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.
- 3) **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.
- 4) **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.

- 5) 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.

PRESENTATIONS AND DELIVERED PAPERS

Science, Environment & Society

- 1) "Be(e)ing Human: A Social History of Collapsing Beehives in the United States." **Invited Talk** at the Rachel Carson Center for Environment & Society's Lunchtime Colloquium, Ludwig-Maximilian University, Munich, Germany. July 2013.
- 2) "Beekeepers' collective resistance and the politics of pesticide regulation in France and the United States." **Invited Paper** (co-authored with Daniel Lee Kleinman) presented at the Political Sociology of Science Workshop, University of Wisconsin-Madison. June 2012.
- 3) "Finding Sustainable Solutions to Honey Bee and Pollinator Health". **Invited Talk** at the Entomology Seminar Series, Department of Entomology, University of Wisconsin-Madison. April 2012.
- 4) Panel Debate on Primates in Biomedical Research. **Invited**. Undergraduate course on Human/Animal Relationships. Department of Zoology, University of Wisconsin-Madison. April 2012.
- 5) 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.
- 6) "The Human Dimensions of Honey Bee Health". **Invited Talk** at the Winter Conference of the Dane County Beekeepers' Association, Madison, WI. February 2012.
- 7) "Bioscientific Fields and Human/Animal Boundaries". **Invited Paper**, 'Disciplines of Animal Studies' Colloquium, University of Wisconsin-Madison, WI. November 2011.
- 8) "B(e)eing Experts: Science, Beekeeping and the Politics of Expertise". Paper presented at the Annual Meeting of the Society for the Social Studies of Science, Cleveland, OH. November 2011.
- 9) "B(e)coming Experts: The Controversy Over Insecticides in the Honey Bee Colony Collapse Disorder" **Invited Talk**, Holtz Center for Science & Technology Studies Brown Bag Series, University of Wisconsin-Madison, WI. October 2011.
- 10) "Vanishing Bees: Colony Collapse Disorder and the Social Production of Ignorance" **Invited Talk** (with Daniel Lee Kleinman), Center for Humanities, University of Wisconsin-Madison,

WI. February 2011.

- 11) "Assessment of Risk to Honey Bees: Pesticides and Floral Landscapes" Invited Talk (co-presented with Vera Krischik). Minnesota Honey Producers Association Annual Meeting, Mankato, MN. July 2010.
- 12) "Honey Bees and Colony Collapse Disorder" **Invited**. Guest Lecture, 'Where Science Meets Society' STS 201, University of Wisconsin-Madison, WI. February 2010.
- 13) "Finding Sustainable Solutions to Honey Bee Health" (co-authored with Daniel Lee Kleinman). Paper presented at the Annual Meeting of the Society for the Social Studies of Science, Washington DC. October/November 2009
- 14) "Finding Sustainable Solutions to Honey Bee Health". Paper presented at the 4th International Conference on Interdisciplinary Social Sciences, Athens, Greece. July 2009.
- 15) "The Human/Animal Divide" (with Mario Ortiz-Robles). **Invited Talk** at the 'What is Human?' Friday Lunch Series, Center for Humanities, University of Wisconsin-Madison. March 2009.
- 16) "Rethinking Nature: Implications for the Environmental Sciences" **Invited Guest Lecture** to course in 'Extinction of Species', University of Wisconsin-Madison. December 2008.
- 17) "Triage of Humans, Animals and Insects" (Mario Ortiz-Robles and Hans Adler) Panel Discussion at the 'What is Human?' Symposium, Center for Humanities, University of Wisconsin, Madison. March, 2008.
- 18) "Violence On the Human and Non-human Other in Modern Technoscientific Cultures" **Invited Talk** presented at the Technology and Governance Conference, Indian Institute of Management, Bangalore, India. December, 2007.

Biology

- 1) "Vibrational signals influence development in *Polistes* wasps" (with Robert L. Jeanne), **Invited Talk** 'Honoring Hölldobler and Wilson by Celebrating the Social Insects' at the Annual Meeting of the Entomological Society of America, Indianapolis, IN. December 2009.
- 2) "A Novel Role for Vibrational Signaling in a Social Insect" (with Robert L. Jeanne), **Invited Talk** at the Evolutionary Seminar Series, University of Wisconsin-Madison. March 2009.
- 3) "Learning in Insects", **Invited Guest Lecture** to course in Insect Behavior, University of Wisconsin-Madison. February 2009.
- 4) "A Primer Model for the Onset of Antennal Drumming in *Polistes*" Paper presented at the Annual Entomological Society of America meeting, San Diego, CA. December, 2007.

- 5) “Larval Methoprene Treatment Increases Fat Stores in Eclosing Adults of *Polistes fuscatus*: Implications for Pre-Imaginal Caste Bias in a “Simple Eusocial” Wasp”. Poster presented at the IXth International Conference on Juvenile Hormones, York, UK. August 2007.
- 6) “Antennal Drumming Behavior in *Polistes*” **Invited Talk** presented at the Winter Enrichment Lecture Series, University of Wisconsin-Arboretum. March 2006.

Teaching

- 1) UW Teaching Academy Winter Retreat, **Invited Talk**, University of Wisconsin-Madison. January 2009.
- 2) “Acclimating International TAs”, College of Letters & Science Teaching Assistant Workshops, University of Wisconsin-Madison. August 2008.

MEDIA COVERAGE OF RESEARCH

Postdoctoral 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>

Doctoral research

1. Research Highlights. 2011. “Drummed Into Submission”, *Nature* 470 (February 3): 9.
2. Sakai, Jill. 2011. “Marching to the Music”, *Grow*, Summer Issue.
3. Frail, T.A. et al. 2011. “Drum Beat”, *Smithsonian Magazine*, April.
4. “Drumming Wasps”, *Science Update*: The Science Radio News Feature of the AAAS, February 17, 2011. www.scienceupdate.com/2011/02/drumming-wasps/
5. University of Wisconsin News, “Rhythmic Vibrations Guide Caste Development in Social Wasps”, January 24, 2011. www.news.wisc.edu/18877

UNDERGRADUATE MENTORING: STUDENT RESEARCH

2011
2007, 2008

Noah C. Pearce (Sociology)
Carlos G. Torres (Psychology; The McNair Scholars Program for preparing low-income, first-generation, and underrepresented undergraduate students for graduate education)

2007, 2008	Amy Hantschel (Zoology)
2008	Theresa Cira (Entomology)
2007	Alex Heeren (Zoology)
2007	Julia Hoeh (Zoology)
2007	Carl Kaiser (Zoology)
2007	Scott Bramwell (Zoology)
2007	Lindsay Traeger (Zoology)
2007	Megan Wanzek (Zoology)
2007	Nicholas Propson (Zoology)
2007	Matthew Ruebl (Zoology)
2007	Adam Stone (Zoology)
2007	Jeremy Tupper (Zoology)
2007	Gerald Elliott (Zoology)
2007	Victoria Konicek (Zoology)
2006	Vanessa Machen (Zoology)
2006	Jeff Rolling (Zoology)
2006	Jessica Bartlett (Zoology)
2006	Shail Shah (Zoology)
2006	Wa Vang (Zoology)

SYNERGISTIC ACTIVITIES

- 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”, March 2012-May 2013.
- Associate Staff member of the University of Wisconsin-Madison’s Center for Integrative Agricultural Systems, January 2013-Present.
- Honorary Associate, Nelson Institute for Environmental Studies, University of Wisconsin-Madison, January 2013-Present.
- Consultant with Drs. Robert Jeanne (Emeritus Professor, Entomology, UW-Madison) and Amy Toth (Assistant Professor, Iowa State University) on an NSF project, “Epigenetic, transcriptomic, and behavioral impacts of a maternal signal during wasp caste development”, April 2012-Present.
- Participant in the A.W. Mellon Faculty Seminar on Animal Studies, Center for Humanities, University of Wisconsin-Madison, 2011-2012
- Consultant on Graduate Student Workshop, “Taking Animals Apart: Exploring Interspecies Enmeshment in a Biotechnological Era”, 2012.

- Manuscript Reviewer for: *Controversies in Science & Technology*, *Insectes Sociaux*, *Naturwissenschaften*, *Journal of Insect Science*, *SpringerPlus*.

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- Society for the Social Studies of Science
- American Beekeeping Federation
- Dane County Beekeeper's Association
- Wisconsin Honey Producers' Association
- Entomological Society of America
- International Union for the Study of Social Insects