Curriculum Vitae

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Education

Ph.D. candidate in Ecology, Evolution, and Behavior at the University of Texas at Austin.

Master's degree in Philosophy, University of Texas at Austin, Spring, 2004. Thesis: "The Use of Graph Theory in the Design of Conservation Area Networks: Methods for Maximizing Network Connectivity."

B. A., Historical Studies, University of Texas at Dallas, Spring, 2001 (*summa cum laude*).

Academic Interests

Biostatistics.
Conservation planning.
Geographic information systems and remote sensing.

Publications

Sarkar, S. and Fuller, T. 2003. "Generalized Reaction Norms for Ecological Developmental Biology," *Evolution and Development* **5**: 106 -115.

Fuller, T. 2003. "The Integrative Biology of Phenotypic Plasticity. [Review of Pigliucci, M. Phenotypic Plasticity: Beyond Nature and Nurture]," *Biology and Philosophy* **18**: 381 - 389.

Crews, D., Fuller, T., Mirasol, E. G., Pfaff, D. W., and Ogawa, S. 2004. "Postnatal Environment Affects Behavior of Adult Transgenic Mice," *Experimental Biology and Medicine* **229**: 935 -939.

Sarkar, S., Moffett, A., Sierra, R., Fuller, T., Cameron, S., and Garson, J. 2004. "Incorporating Multiple Criteria into the Design of Conservation Area Networks," *Endangered Species Update* **21**: 100 - 107.

Fuller, T., Sarkar, S., and Crews, D. 2005. "The Use of Norms of Reaction to Analyze Genotypic and Environmental Influences on Behavior in Mice and Rats," *Neuroscience and Biobehavioral Reviews* **29**: 445 - 456.

Sarkar, S., Justus, J., Fuller, T., Kelley, C., Garson, J., and Mayfield, M. 2005. "Effectiveness of Environmental Surrogates for the Selection of Conservation Area Networks," *Conservation Biology* **19**: 815 - 825.

Fuller, T. and Sarkar, S. 2006. "LQGraph: A Software Package for Optimizing Connectivity in Conservation Planning," *Environmental Modeling and Software* **21**: 750 - 755.

Fuller, T., Munguía, M., Mayfield, M., Sánchez-Corderdo, V., and Sarkar, S. 2006. "Incorporating Connectivity into Conservation Planning: A Multi-Criteria Case Study from Central Mexico," *Biological Conservation* **133**: 131-142.

Sarkar, S., Pressey, R.L., Faith, D.P., Margules, C.R., Fuller, T., Stoms, D.M., Moffett, A., Wilson, K.A., Williams, K.J., Williams, P.H., and S. Andelman. 2006. "Biodiversity Conservation Planning Tools: Present Status and Challenges for the Future," *Annual Review of Environment and Resources* **31**: 123 - 159.

Fuller, T., Sánchez-Corderdo, V., Illoldi-Rangel, P., Linaje, M, and Sarkar, S. 2007. "The Cost of Postponing Biodiversity Conservation in Mexico," *Biological Conservation* **134**: 593 -600.

Sarkar, S., Mayfield, M., Cameron, S., Fuller, T., and Garson, J. 2007. "Conservation Area Networks for the Indian Region: Systematic Methods and Future Prospects." *Himalayan Journal of Sciences* **4**(6): 27-40.

Fuller, T., Morton, D. P., and Sarkar, S. 2008. "Incorporating Uncertainty about Species' Potential Distributions under Climate Change into the Selection of Conservation Areas with a Case Study from the Arctic Coastal Plain of Alaska." *Biological Conservation* **141**: 1547 - 1559. doi:10.1016/j.biocon.2008.03.021

Fuller, T., Morton, D., and Sarkar, S. 2008. "Planning for Biodiversity Conservation Using Stochastic Programming." In Deutsch, A., Bravo de la Parra, R., de Boer, R.,

Diekmann, O., Jagers, P., Kisdi, E., Kretzschmar, M., Lansky, P., and Metz, H. (Eds.), *Mathematical Modeling of Biological Systems, Volume II*. (Boston: Birkhäuser). pp. 101-107.

Illoldi-Rangel, P., Fuller, T., Linaje, M., Sánchez-Cordero, V., and Sarkar, S. 2008. "Solving the Maximum Representation Problem to Prioritize Areas for the Conservation of Terrestrial Mammals at Risk in Oaxaca." *Diversity and Distributions* **14**: 493 - 508.

Justus, J., Fuller, T., and Sarkar, S. 2008. "The Influence of Representation Targets on the Total Area of Conservation Area Networks." *Conservation Biology* **22**: 673 - 682.

Sánchez-Cordero, V., Illoldi, P., Linaje, M., Fuller, T. and Sarkar, S. 2008. “Por qué hay un costo en posponer la conservación de la diversidad biológica en México.” *Biodiversitas* **76**: 7 -12.

In Press

Fuller, T. 2008. “Convention on Biodiversity”. In Callicott, J. B. and Frodeman, R. (Eds.), *Encyclopedia of Environmental Ethics and Environmental Philosophy* (Farmington Hills, Minnesota: MacMillan Reference / Thompson Gale).

Sánchez-Cordero, V., Illoldi-Rangel, P., Escalante, T., Figueroa, F., Rodríguez, G., Linaje, M., Fuller, T., and Sarkar, S. 2008. “Deforestation and Biodiversity Conservation in Mexico.” In Sanchez, I. B. and Alonso, C. L. (Eds.), *Deforestation Research Progress*. Nova Science Publishers, Hauppauge, New York, USA.

Sarkar, S., Fuller, T., Aggarwal, A., Moffett, A., and Kelley, C. D. 2008. “The ConsNet Software Platform for Systematic Conservation Planning.” In Moilanen, A., Possingham, H., and Wilson, K. (Eds.), *Spatial Conservation Prioritization: Quantitative Methods and Computational Tools.* Oxford University Press, Oxford, UK.

Thesis

Fuller, T. 2004. “The Use of Graph Theory in the Design of Conservation Area Networks: Methods for Maximizing Network Connectivity.” M.A. Thesis, Department of Philosophy, University of Texas at Austin.

Presentations

“Decision Support for Future Land Acquisition at Balcones Canyonlands NWR,” Mini-

Symposium: Research at the Balcones Canyonlands National Wildlife Refuge, University of Texas at Austin, January 25, 2008.

“Effectiveness of model averaging for the identification of Golden–cheeked Warbler habitat in the Balcones Canyonlands ecoregion,” 2007 Golden-cheeked Warbler Symposium, Austin, Texas, June 27, 2007.

"The Use of Reaction Norms to Analyze Plasticity in Mice and Rats." University of Texas at Austin, Plasticity and Epigenetics Seminar, Austin, Texas, March 3, 2006.

“Optimization Problems in Conservation Biology”, Estación de Biología “Los Tuxtlas”, Instituto de Biología, Universidad Nacional Autónoma de México, San Andrés Tuxtla, Veracruz, Mexico, August 5, 2005.

“Stochastic Programming Methods for the Design of Conservation Area Networks”, Sixth Tri-Annual Conference of the European Society on Mathematical and Theoretical Biology, Dresden, German, July 21, 2005.

“The Use of Graph Theory in the Design of Conservation Area Networks: Methods for Maximizing Network Connectivity,” Ecological Society of America 2004 Annual Meeting, Portland, Oregon, August 3, 2004.

“The Maintenance of Connectivity in Conservation Area Networks: Graph-Theoretic Protocols,” 2004 Society for Conservation Biology Annual Meeting, New York, New York, July 30, 2004.

“The Use of Graph Theory in the Design of Conservation Area Networks: Methods for Maximizing Network Connectivity,“ Student Research Symposium in Ecology, Conservation, and Evolutionary Biology, Department of Fisheries and Wildlife, Texas A & M University, College Station, TX, February 21, 2004.

“Selecting Landscape Units for Restoration to Establish Connectivity in a Conservation Area Network: A Graph-Theoretic Model,” 15th Annual Conference of the Society for Ecological Restoration International, Austin, TX, November 19, 2003.

“The Development of the Reaction Norm Concept: The Woltereck/Johannsen Controversy,” Philosophy of Biology Graduate Student Conference, University of Texas at Austin, April 5, 2002.

Grants and Fellowships

University Continuing Fellowship, University of Texas at Austin, 2008-2009 ($25,635).

Marion Elizabeth Eason Endowed Scholarship for the Study of Biology, School of Biological Sciences, University of Texas at Austin, 2008 ($ 900).

Funding from the NSF to attend the Climate Math workshop at the Joint Math Meeting, San Diego, California, January 6-9, 2008 ($ 550).

Funding to attend the working group on “Making decisions on complex environmental problems”, National Center for Ecological Analysis and Synthesis, Santa Barbara, California, December 3-7, 2007 ($628).

Research assistant to Sahotra Sarkar: funded through NSF Grant Nos. SES-0645884 (2007-2008) and SES-0090036 (2002) and a University of Texas Liberal Arts Instructional Technology Services grant (2005-2007).

Funding from the European Union to attend the European Conference on Mathematical and Theoretical Biology at Dresden Technical University, July 18 – 22, 2005 (€ 890).

Funding to attend “The Mathematics Behind Biological Invasions,” NSF VIGRE mini-course at the University of Utah Department of Mathematics, June 2 –13, 2003.

Eugene McDermott Scholarship, University of Texas at Dallas, 1997-2001.

Manuscript Reviews

Conservation Biology

Environmental Modelling and Software

Oxford University Press