

Trevon Fuller

Education

- University of Texas at Austin,** (September 2004 – present)
Ph.D. in Ecology, Evolution, and Behavior, expected graduation date: May 2009
Dissertation: “Area Prioritization for Optimal Conservation Planning.”
- University of Texas at Austin, M. A.,** (September 2001 – May 2004)
M.A. in Philosophy
Thesis: “The Use of Graph Theory in the Design of Conservation Area Networks: Methods for Maximizing Network Connectivity.”
- University of Texas at Dallas, B. A.,** (September 1997 – May 2001)
B.A. in Historical Studies

Journal Articles

16. Sarkar, S., Sánchez–Cordero, V., Londoño, M. C., and Fuller, T. Systematic conservation assessment for the Mesoamerica, Chocó, and Tropical Andes biodiversity hotspots: a preliminary analysis. *Biodiversity and Conservation*, in press.
15. Iloldi–Rangel, P., Fuller, T., Linaje, M., Pappas, C., Sánchez–Cordero, V., and Sarkar, S. Solving the maximum representation problem to prioritize areas for the conservation of terrestrial mammals at risk in Oaxaca. *Diversity and Distributions*, 14:493–508, 2008.
14. Sánchez–Cordero, V., Iloldi, P., Linaje, M., Fuller, T., and Sarkar, S. Por qué hay un costo en posponer la conservación de la diversidad biológica en México. *Biodiversitas*, 76:7–12, 2008.
13. Justus, J., Fuller, T., and Sarkar, S. The influence of representation targets on the total area of conservation area networks. *Conservation Biology*, 22:673–682, 2008.
12. Fuller, T., Morton, D. P., and Sarkar, S. 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, 2008.
11. Sarkar, S., Mayfield, M., Cameron, S., Fuller, T., and Garson, J. Conservation area networks for the Indian region: systematic methods and future prospects. *Himalayan Journal of Sciences*, 4:27–40, 2007.
10. Fuller, T., Sánchez–Cordero, V., Iloldi–Rangel, P., Linaje, M., and Sarkar, S. The cost of postponing biodiversity conservation in Mexico. *Biological Conservation*, 134:593–600, 2007.
9. 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 Andelman, S. Biodiversity conservation planning tools: present status and challenges for the future. *Annual Review of Environment and Resources*, 31:123–159, 2006.
8. Fuller, T. and Sarkar, S. LQGraph: a software package for optimizing connectivity in conservation planning. *Environmental Modeling and Software*, 21:750–755, 2006.
7. Fuller, T., Munguía, M., Mayfield, M., Sánchez–Cordero, V., and Sarkar, S. Incorporating connectivity into conservation planning: a multi–criteria case study from central Mexico. *Biological Conservation*, 133:131–142, 2006.
6. Sarkar, S., Justus, J., Fuller, T., Kelley, C., Garson, J., and Mayfield, M. Effectiveness of environmental surrogates for the selection of conservation area networks. *Conservation Biology*, 19:815–825, 2005.
5. Fuller, T., Sarkar, S., and Crews, D. 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, 2005.

Journal Articles (continued)

4. Sarkar, S., Moffett, A., Sierra, R., Fuller, T., Cameron, S., and Garson, J. Incorporating multiple criteria into the design of conservation area networks. *Endangered Species Update*, 21:100–107, 2004.
3. Crews, D., Fuller, T., Mirasol, E. G., Pfaff, D. W., and Ogawa, S. Postnatal environment affects behavior of adult transgenic mice. *Experimental Biology and Medicine*, 229:935–939, 2004.
2. Sarkar, S. and Fuller, T. Generalized norms of reaction for ecological developmental biology. *Evolution and Development*, 5:106–115, 2003.
1. Fuller, T. The integrative biology of phenotypic plasticity. [Review of Pigliucci, M. *Phenotypic Plasticity: Beyond Nature and Nurture*]. *Biology and Philosophy*, 18:381–389, 2003.

Book chapters

4. Sarkar, S., Fuller, T., Aggarwal, A., Moffett, A., and Kelley, C. D. The ConsNet software platform for systematic conservation planning. In A. Moilanen, H. Possingham, and K. Wilson, editors, *Spatial Conservation Prioritization: Quantitative Methods and Computational Tools*. Oxford University Press, Oxford, UK. ISBN 978-0-19-954777-7, 2009.
3. Sánchez-Cordero, V., Iloldi-Rangel, P., Escalante, T., Figueroa, F., Rodríguez, G., Linaje, M., Fuller, T., and Sarkar, S. Deforestation and biodiversity conservation in Mexico. In A. M. Columbus and L. Kuznetsov, editors, *Endangered Species: New Research*. Nova Science Publishers, Hauppauge, New York, USA. ISBN 978-1-60692-241-5, 2009.
2. Fuller, T. Convention on Biodiversity. In J. B. Callicott and R. Frodeman, editors, *Encyclopedia of Environmental Ethics and Environmental Philosophy*. MacMillan Reference / Thompson Gale, Farmington Hills, Minnesota. ISBN 978-0-02866-137-7, 2008.
1. Fuller, T., Morton, D. P., and Sarkar, S. Planning for biodiversity conservation using stochastic programming. In A. Deutsch, R. Bravo de la Parra, R. de Boer, O. Diekmann, P. Jagers, E. Kisdi, M. Kretzschmar, P. Lansky, and H. Metz, editors, *Mathematical Modeling of Biological Systems, Volume II*, pages 101–107. Birkhäuser, Boston, 2007.

Fellowships and Grants

- 10. University Continuing Fellowship:** University of Texas at Austin, 2008-2009. Amount: \$25,635.
- 9. Funding to attend the NSF Climate Math workshop:** Joint Math Meeting, San Diego, California, January 6–9, 2008. Amount: \$550.
- 8. Marion Elizabeth Eason Endowed Scholarship for the Study of Biology:** School of Biological Sciences, University of Texas at Austin, 2008. Amount: \$900.
- 7. Research assistant to Sahotra Sarkar:** funded through NSF Grant No. SES-0645884, 2007–2008.
- 6. 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. Amount: \$628.
- 5. Research assistant to Sahotra Sarkar:** funded through a University of Texas Liberal Arts Instructional Technology Services grant, 2005–2007.
- 4. Funding from the European Union to attend the European Conference on Mathematical and Theoretical Biology:** Dresden Technical University, July 18–22, 2005. Amount: €890.
- 3. Funding to attend “The Mathematics Behind Biological Invasions”:** NSF VIGRE mini-course at the University of Utah Department of Mathematics, June 2–13, 2003.
- 2. Research assistant to Sahotra Sarkar:** funded through NSF Grant No. SES-0090036, 2002.

Fellowships and Grants (continued)

1. Eugene McDermott Scholarship: University of Texas at Dallas, 1997–2001. Four-year support for tuition and fees, annual book stipend, and living expenses. Web site: www.utdallas.edu/mcdermott/.

Professional Activities

- 1. Ecological Society of America:** student member.
- 2. European Society for Mathematical and Theoretical Biology:** student member.
- 3. Society for Conservation Biology:** student member.
- 4. Society for Industrial and Applied Mathematics:** student member.
- 5. Working Group on “Making Decisions on Complex Environmental Problems”:** National Center for Ecological Analysis and Synthesis, University of California, Santa Barbara.

Software

LQGraph: A program for selecting connectivity areas to link conservation areas using graph algorithms. Available from <http://uts.cc.utexas.edu/~consbio/Cons/ResNet.html>

Presentations

- 12. Incorporating genetic and geographical distance into the design of conservation areas:** Edmands Lab, Section of Marine Environmental Biology, Department of Biological Sciences, University of Southern California, Los Angeles, California, October 10, 2008.
- 11. The use of optimization models in tropical conservation planning:** Center for Tropical Research, Institute of the Environment, University of California, Los Angeles, October 1, 2008.
- 10. 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.
- 9. 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.
- 8. 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.
- 7. 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.
- 6. 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.
- 5. 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.
- 4. 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.
- 3. 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.
- 2. 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.

Presentations (continued)

1. 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.

References

David Crews

Ashbel Smith Professor of Zoology and Psychology, Section of Integrative Biology, University of Texas at Austin, Austin, TX 78712, Phone: (512) 471-1113, Fax: (512) 471-6078, Departmental Fax: (512) 471-3878, E-mail: crews@mail.utexas.edu, Lab Web site: <http://www.utexas.edu/research/crewslab>.

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Víctor Sánchez-Cordero

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