

# Michael M. Fuller

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## Education

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### **Ph.D. Biology (Ecology emphasis)**

UNIVERSITY OF NEW MEXICO. Co-advisors: Andreas Wagner, James H. Brown  
Committee: Eric L. Charnov, Scott L. Collins, and Jurek Kolasa (McMaster University)  
Dissertation: *Chance, Determinism and Community Structure: An Assessment of Ecological Neutral Theory.*

### **MS Zoology**

UNIVERSITY OF OKLAHOMA. Advisor: Caryn Vaughn. Committee: Mike Kaspari, Gary Wellborn.  
Thesis: *Self-Organized Criticality In A Diverse Ecological Community: Support For The Bak-Sneppen Model Of Evolution.*

### **BS Zoology cum laude**

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, Pomona. Advisor: Stephen Bryant.

Supplementary Technical Coursework

### **Santa Fe Institute Complex Systems Summer School**

Four-week course in complexity theory and chaotic dynamical systems. Santa Fe Institute, Santa Fe, NM

## Professional History

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- 2007- present **Postdoctoral Fellow**  
Faculty of Forestry, University of Toronto, Canada  
Advisors: Dr. Sean Thomas & Dr. John Caspersen
- 2004-2007 **Postdoctoral Fellow**  
The Institute for Environmental Modeling, Dept. of Ecology & Evolutionary Biology,  
University of Tennessee, Knoxville. Advisor: Dr. Louis Gross
- 2002-2003 **Computer Programmer, Database Consultant**  
New Mexico Biodiversity Collections Consortium & Museum of Southwest Biology,  
Arthropods Division. Albuquerque, New Mexico
- 1995 - present **Environmental Consultant**  
Part-time contractor to public and private resource management agencies.

## Peer-Reviewed Publications

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1. Thorpe, H., M. Fuller, S. Thomas, and J. Caspersen. 2009. Quantifying the influence of residual-tree responses on stand development after partial harvests. *Sustainable Forest Network Research Note* 44.
2. Fuller, M.M., L.J. Gross, S.M. Duke-Sylvester, and M. Palmer. 2008. Testing the robustness of management decisions: Everglades Restoration Scenarios. *Ecological Applications* **18**:711-723.
3. Fuller, M.M., B.J. Enquist, and A. Wagner. 2008. Using network analysis to characterize forest structure. *Natural Resource Modeling* **21**:225-247.
4. Fuller, M.M., D. Wang, L.J. Gross, and M.W. Berry. 2007. Current Problems and Future Directions in Computational Science for Natural Resource Management. *IEEE Computing in Science and Engineering* **9**:40-48.
5. Balfour, P.S., E.W. Stitt, and M.M. Fuller. 2007. *Nerodia fasciata pictiventris* (Florida water snake). *Herpetological Review* **38**:363. (Description of species distribution in California.)
6. Drake, J.A., M.M. Fuller, C.R. Zimmermann, and J.G.P. Gamarra. 2006. Emergence in ecological systems. In: N. Rooney, K.S. McCann, and D.L.G. Noakes (eds), *From Energetics to Ecosystems: the Dynamics and Structure of Ecological Systems*. pp 157-183. Springer, The Netherlands.
7. Fuller, M.M. and B.W. Trevett. 2006. *Nerodia fasciata pictiventris* (Florida water snake). *Herpetological Review* **37**:363. (Record of species invasion.)
8. Fuller, M.M., T. Romanuk, and J. Kolasa. 2005. Effects of predation and variation in species relative abundance on the parameters of neutral models. *Community Ecology* **6**:229-240.
9. Jennings, Mark R., and Michael M. Fuller. 2004. Origin and distribution of leopard frogs, *Rana pipiens* complex, in California. *California Fish and Game* **90**:119-139.
10. Fuller, M.M. and J.A. Drake. 2000. Modeling the invasion process. In R. Claudi and J. Leach (eds), *Non-Indigenous Freshwater Organisms in North America: Vectors, Biology, and Impacts*, pp 411-414. Lewis Publishers, Boca Raton, Florida.
11. Durtsche, R.D., P.J. Gier, M.M. Fuller, W.I. Lutterschmidt, R. Bradley, C.K. Meier, and S.C. Hardy. 1997. Ontogenetic variation in the autecology of the greater earless lizard *Cophosaurus texanus*. *Ecography* **20**:336-46.
12. Fuller, M.M. 1995. *Bufo punctatus* (red-spotted toad). *Herpetological Review* **26**:151-152. (Record of geographical sympatry and hybridization with *Bufo boreas*).

## Submitted and In Review

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Thorpe, H.C., Fuller, M.M., S.C. Thomas, J.P. Caspersen. Quantifying the influence of structural retention harvests on long-term stand development. In revision for *Ecological Modelling*.

## NSF Workshops Organized

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*Computational Science for Natural Resource Managers*. Directed two NSF funded workshops. University of Tennessee Conference Center, Knoxville, Tennessee. 2006 and 2007.  
<http://www.tiem.utk.edu/workshop07>

## Talks Presented at Scientific Meetings

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- 2008 *Testing the robustness of management decisions to uncertainty: Everglades restoration scenarios.* Ecological Society of America, Milwaukee, WI.
- 2006 *Using Integro-Difference Equations to Model the Effect of Growing Season Length on the Spread of the Eurasian Collared-Dove in North America.* Ecological Society of America, Memphis, TN.
- 2005 *Using Network Analysis to Characterize Forest Structure.* Resource Modeling Association. Arcata, California.
- 2004 *Competition Influences Species Association of Tropical Trees.* Ecological Society of America, Portland, Oregon.
- 2002 *On Zero-Sum Dynamics and Taylor Power Laws.* Ecological Society of America, Tucson, Arizona.

## Academic Awards & Fellowships

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### **NSF Graduate Research Traineeship in Ecological Complexity (stipend and tuition)**

Biology Department, University of New Mexico.

### **Santa Fe Institute Complex Systems Summer School Scholarship**

Full scholarship (tuition, room and board). Santa Fe, New Mexico

### **Summer Graduate Research Assistantship (\$1050.00)**

Department of Zoology, University of Oklahoma

**\$4,000 Equipment Grant** (for water chemistry meters and diet analysis equipment). Awarded jointly with two other graduate students. Hach Company, Loveland, CO

## Professional Affiliations

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- Ecological Society of America
- International Society for Ecological Modeling
- International Association of Landscape Ecologists
- Resource Modeling Association
- Society of Mathematical Biology

Referee for: *Ecology*, *Ecology Letters*, *Annals of Botany*, *Journal of Biogeography*, and *International Journal of Geographic Information Systems*.

## Government Agency Affiliations

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- 2007-present **US. Fish & Wildlife Service *Nerodia* Working Group.**  
Multi-agency task force focused on the regulation and control of exotic water snakes in California.