

BIOGRAPHICAL SKETCH - LOUIS J. GROSS

(a) Professional Preparation

Drexel University	Mathematics with honors	BS	1974
Cornell University	Applied Mathematics	Ph.D.	1979

(b) Professional Appointments:

2010- present, Alvin and Sally Beaman Professor, University of Tennessee
2009- present, James R. Cox Distinguished Professor, University of Tennessee
2008- present, Director, National Institute for Mathematical and Biological Synthesis
1997- present, Professor, Departments of Ecology and Evolutionary Biology and Mathematics, University of Tennessee, Knoxville, TN
1998 – present, Director, The Institute for Environmental Modeling, University of Tennessee
1992- 1997, Professor, Department of Mathematics and Graduate Program in Ecology, University of Tennessee, Knoxville, Tennessee
1985-1992, Associate Professor, Department of Mathematics and Graduate Program in Ecology, University of Tennessee, Knoxville, Tennessee
1987, Distinguished Visitor (Summer), Mathematics and Botany Departments, University of California, Davis, California

(c) (i) Five Publications Related to the Project:

Hastings, A. and L.J. Gross (eds.). 2012. *The Encyclopedia of Theoretical Ecology*. University of California Press, Riverside, CA.

Gross, L. J. and B. Beckage. 2012. Toward a metabolic scaling theory of crop systems. *Proceedings of the National Academy of Sciences* **109**:15535-15536.

Yin, L., S-L. Shaw, D. Wang, E. A. Carr, M. W. Berry, L. J. Gross and E. J. Comiskey. 2012. A framework of integrating GIS and parallel computing for spatial control problems – a case study of wildfire control. *International Journal of Geographical Information Science* **26**:621-641.

Beckage, B., L. J. Gross, and S. Kauffman. 2011. The limits to prediction in ecological systems. *Ecosphere* **2**(11):125. doi:10.1890/ES11-00211.1

Beckage, B., L. J. Gross and W. J. Platt. 2011. Grass feedbacks on fire stabilize savannas. *Ecological Modelling* **222**: 2227-223.

(ii) Five Additional Publications:

Beckage, B., W. J. Platt and L. J. Gross. 2009. Vegetation, fire, and feedbacks: a disturbance-mediated model of savannas. *American Naturalist* **174**(6): 805-818 (2009).

Fuller, M. M., L. J. Gross, S. M. Duke-Sylvester and M. Palmer. 2008. Testing the Robustness of Management Decisions to Uncertainty: Everglades Restoration Scenarios. *Ecological Applications* **18**:711-723.

Bodine, E. N, L. J. Gross and S. Lenhart. 2008. Optimal control applied to a model for species augmentation. *Mathematical Biosciences and Engineering* **5**:669-680.

Gaff, H. D. and L. J. Gross. 2007. Modeling tick-borne disease: a metapopulation model. *Bulletin of Mathematical Biology* **69**:265-288.

Gross, L. J. 2004. Interdisciplinarity and the undergraduate biology curriculum: finding a balance. *Cell Biology Education* **3**:85-87.

(d) Synergistic Activities:

Society for Mathematical Biology. President (2003-2005). Scientific Committee member for Annual Meetings (1999, 2000), Annual Meeting Chair (2002). Education Committee member (1999-2008). President-Elect (2002), Nominating Committee Chair (2010), Okubo Prize Chair (2011), Annual Meeting Chair (2012)

Mathematical Biosciences Institute. Chair, Board of Governors, Ohio State University, 2003-2005.

American Institute for Biological Sciences, 2006 Distinguished Scientist Awardee. Elected at-Large Member of Board of Directors, 2008-2010; Elected Treasurer, 2010-2013.

Ecological Society of America, Annual Meeting Program Chair, 2008; Meetings Committee co-Chair, 2008-2009; Theoretical Ecology Section: Vice Chair, 2000-2001; Chair, 2001-2002.

National Research Council. Chair, Committee on Integrating Education with Biocomplexity Research. 2001-2003. Member, Mathematics and Computer Science Panel for Bio2010: Transforming Undergraduate Education for Future Research Biologists, 2001-2002. Member, Committee on the Selection and Use of Models in Regulatory Decision Making, 2004-2005. Member, Board on Life Sciences, 2008-2013; BLS Liaison to Standing Committee on Emerging Science for Environmental Health Decisions, 2010-2013.

(e) Collaborators and Other Affiliations:

(i) Collaborators, co-editors, and current affiliations:

E. Asano (U South FL), B. Beckage (U VT), M. Berry (UTK), E. Bodine (Rhodes), J. Brown (UIC), N. Buchanan (ESRI), E. Carr (UTK), E. Comiskey (UTK), V. Dale (ORNL), D. DeAngelis (USGS), W. Ding (Mid. TN St.) S. Duke-Sylvester (U. Louisiana), H. Gaff (Old Domin.), W. Godsoe (UTK), A. Hastings (UC Davis), B. Johnson (UTK), H. Joshi (Xavier), S. Kauffman (SFI/U VT), K. Klemow (Wilkes), K. Langston (UTK), S. Lenhart (UTK), B. McGill (U Maine), M. Palmer (UTK), W. Platt (LSU), A. Potochnik (U Cinn), L. Real (Emory), R. Salinas (App. St.), D. Simberloff (UTK), R. Stephenson ((U. Mass-Boston), C. Travis (UTK), D. Wang (ORNL), A. Whittle (Kennesaw St).

(ii) Graduate Advisors: Simon A. Levin (Princeton), Brian F. Chabot (Cornell)

(iii) Ph.D. Students and Post-doctoral Associates Directed: Brian Beckage (U VT), Mark Bevelhimer (ORNL), E. Bodine (Rhodes), John Curnutt (USGS), Wandi Ding (MTSU), Scott Duke-Sylvester (U. Louisiana), Paula Federico (Capital U.), Michael Fuller (U Toronto), Holly Gaff (Old Domin.), O. Gaoue (UTK), Will Godsoe (UTK), Milena Holmgren (Wageningen), Hem Raj Joshi (Xavier), Hang-Kwang Luh (Oregon St.), E. Moran (UTK), Seema Nanda (Bangalore), M. Philip Nott (Inst. Bird Pop.), Larry Pounds (ORNL), Rene' Salinas (Appal. St.), Dali Wang (ORNL), Paul Wetzel (Mt. Holyoke), Andrew Whittle (Kennesaw St.), Yegang Wu (S FL. Water Manage. District).

Total graduate students directed: 15. Total Post-doctoral associates: 18.