

# **Bret D. Elder**

## **Curriculum Vitae**

Address: Department of Biochemistry  
University of Tennessee  
Knoxville, TN 37996  
E-mail: elder@utk.edu

### **Academic & Research Appointments**







## Book chapters

1. Elderd, B. D. and G. Dwyer (2020). "Population structure and disease spread in insect baculoviruses". In: *Defining diseases: Linking theory to data and application*. Ed. by K. Wilson, A. Fenton, and D. Tompkins. Cambridge University Press.
2. Elderd, B. D. (2018). "Modeling insect epizootics and their population-level consequences". In: *Ecology of Invertebrate Diseases*. Ed. by A. Hajek and D. Shapiro-Ilan. Wiley.
3. Elderd, B. D., P. Shahani, and D. F. Doak (2003). "Problems and potential uses of count-based PVAs". In: *Population Viability Analysis: A Practical Guide to Estimating Extinction Risk*. Ed. by S. E. Shaffer and M. S. Gaines. Cambridge University Press.

2011-2014	Climate change and disease transmission: Shifts in host-pathogen ranges. Louisiana Board of Regents. PI: B.D. Elderd	\$133,012
2011-2013	Untangling top-down and bottom-up effects on host-pathogen interactions. Louisiana Board of Regents. PI: B.D. Elderd	\$8,500
2011	The effects of global climate change on disease transmission and species interactions. LSU Council on Research PI: B.D. Elderd	\$5,000
2005-2008	Mechanisms of disease transmission, variability in host susceptibility, and forest defoliator outbreaks. NSF DEB. PI: G. Dwyer, Co-PIs: B.D. Elderd and M. Coram	\$362,243
1997-2002	NSF Graduate Researcher in Training (GRT).	

## Teaching

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2008 - Present Department of Biological Sciences.

*Courses:* Principles of Ecology (Biology 4253 - Fall '08 - '21)

Analytical Approaches to Ecological Data (Biology 7800 - Fall '16, Fall '18, Fall '20, Fall '22)

Quantitative Ecology (Biology 4800/7800 - Spring '10, Spring '11, Fall '12, Fall '14, Fall '17, Fall '19, Fall '21)

Foundations of Computing for Biologists (Biology 4800 - Fall '23)

Current Readings in Disease Ecology (Biology 7901 - Fall '09)

Contemporary Issues in Ecology (Biology 7901 - Spring '13, Fall '13, Spring '15, Fall '15)

The Phytochemical Landscape (Biology 7901 - Fall '16)

Metacommunity Ecology (Biology 7901 - Fall '19)

Wildlife Disease Ecology (Biology 7901 - Fall '21)

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2007 Co-Lecturer, Department of Ecology and Evolution, University of Chicago.

*Course:* Ecological Applications to Conservation Biology - Lecture & Lab.

2004 & 2005 Guest Lecturer, Department of Statistics, University of Chicago.

*Course:* Quantitative Methods for Environmental Science.

1999-2000 Co-organizer of the Department of Environmental Studies Seminar Series, University of California, Santa Cruz.

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2016 Invited instructor for one week of the University of Puerto Rico's premier graduate course, "Tópicos en Biología", University of Puerto Rico, Río Piedras.

## Professional Experience

- 2001 Consultant, The Nature Conservancy of California, San Francisco, CA. Analyzed TNC data set to determine trends in vegetative community composition and viability of rare and endemic species of Santa Cruz Island, CA.
- 2000 Consultant, Institute for Bird Populations, Point Reyes, CA. Modeling effects of habitat fragmentation on the endangered Cape Sable seaside sparrow (*Ammodramus arcticus*).
- 1992 Policy Analyst, Viar and Company, Washington, DC. Evaluated hazardous waste policy as related to the US EPA's Superfund program.
- 1990-1991 Environmental Program Coordinator, Viar & Company, Washington, DC. Coordinated hazardous sample analysis for the US EPA's Superfund program.

## Invited Seminars

- 2023 University of Mississippi.
- 2022 University of Georgia.
- 2019 Louisiana State University.
- 2017 Louisiana State University.
- 2016 University of Colorado, Boulder.
- 2016 University of Puerto Rico, Rio Piedras.
- 2015 University of Nevada, Reno.
- 2015 San Jose State University.
- 2014 Florida State University.
- 2014 University of Colorado, Boulder.
- 2013 Rice University.
- 2010 Louisiana State University.
- 2008 Oklahoma State University.
- 2007 Louisiana State University.
- 2006 Sonoma State University.
- 2004 University of California, San Diego.
- 2004 New Mexico State University.
- 2003 University of Chicago.
- 2002 University of California, Davis.









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**2014 Ecology and Evolution of Infectious Diseases Conference. The virulence trade-off**

**2001 Society for Conservation Biology. Exploring the sensitivity of an endangered species to changes in demography and habitat using an individual-based model for the Cape Sable seaside sparrow. (B. Elderd (p**

**NSF – Integrative Research in Biology (IntBIO)**

**NSF – Division of Integrative Organismal Systems (IOS)**

**NSF – International Research Fellowship Program (IRFP)**

**NSF – Population and Community Ecology Program (PCE)**

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**Agricultural and Forest Entomology, American Naturalist, Animal Behaviour, Austral Ecology, Biological Conservation, Biological Invasions, BioScience, The Condor, Conservation Biology, Ecography, Ecological Applications, Ecological Monographs, Ecology, Ecology Letters, Ecosphere, Entomologia Experimentalis et Applicata, Epidemics, Evolutionary Ecology, Functional Ecology, Journa**



Clark, Matthew Darce, Lucy Detweiler, Kacie Dillon, Sophia Dworak, Richard Elfert, Ben Erdozain, Jackson Erny, Michael Fitzpatrick, Jessica Francisco, Peyton Graham, Alexandra Green, Kayla Guillot, Peter Issa, Kaden Keller, Alan Le, Schyler Lee, Paige Long, Tatum Lyles, Kyle McCauley, McCayn McDaniel, Timothy Montet, Hollie Payne, Laila Polk, Miriam Tariq, Logan Wareham, William Vial, Rush Williams.

Southern University – Lauri Syori.

Southern University, New Orleans – Jacy Haynes.

University of Chicago – Ben Parker, Emma Fuller.

Episcopal High School, Baton Rouge, LA – Aaron Miller.

### **Professional Society Membership**

American Association for the Advancement of Science, British Ecological Society, Ecology Society of America, Society of American Naturalists, Society of Mathematical Biology, Society for the Study of Evolution.

Baton Rouge, LA, April 2024