STEPHEN P. ELLNER

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EDUCATION

B.A. 1975 University of California, Berkeley: Mathematics
Ph.D. 1982 Cornell University: Applied Mathematics, directed by Simon A. Levin
Postdoctoral 1984-85 with Lee Segel, Department of Applied Mathematics, Weizmann Institute

PROFESSIONAL EMPLOYMENT

2013 - present	**Horace White Professor** of Ecology & Evolutionary Biology, Cornell University.
2000 – present	Department of Ecology and Evolutionary Biology, Cornell University. **Professor.**
1986-2000	Biomathematics Graduate Program, Department of Statistics, North Carolina State University, Raleigh, NC. **Professor** 1994-2000, **Associate Professor** 1989-1994, **Assistant Professor** 1986-1989. **Director of Graduate Studies** for the Biomathematics Program, 1991-1995 and 1997.
1982-1986	Department of Mathematics and Program in Ecology, University of Tennessee, Knoxville. **Assistant Professor**.

Visiting positions at Department of Mathematics, University of Arizona, Tucson (1984); Institute of Advanced Studies, Hebrew University, Jerusalem (1990); Isaac Newton Institute for Mathematical Sciences, Cambridge, UK (1993); Biology Department, Kyushu University (1996); Section of Ecology and Systematics, Cornell University (1996); Institute of Computational Sustainability, Cornell (2011).

AFFILIATIONS: British Ecological Society, American Society of Naturalists, Society for Mathematical Biology.

AWARDS AND HONORS

- 2017 American Society of Naturalists Presidential Award (best paper in *The American Naturalist* 2016, joint with Robin Snyder).
- Fellow of the Ecological Society of America (elected 2016).
- 2012 Tansley Lecturer, British Ecological Society.
- Japan Society for Promotion of Science, Visiting Research Fellowship (1996).
- US-Israel BSF Bergmann Memorial Research Award (1987).

CURRENT RESEARCH SUPPORT

- US National Science Foundation, Division of Environmental Biology. "A general approach to partitioning contributions from multiple drivers affecting individuals, populations, and communities" (PIs S.P. Ellner (lead), G. Hooker, P.B. Adler, R. Snyder). $753,562 to Cornell, **2020-2025.**

- NSF/NIH Program on Ecology and Evolution of Infectious Diseases. "It's about time: multi-host parasite spillover in temporally dynamic communities" (PIs S. McArt (Cornell, Lead PI), co-PIs L. Adler (U Mass.), S.P. Ellner, Q. McFredrick (UC Irvine), C. R. Myers (Cornell)). **2021 – 2026**. $2,500,000 total including subcontracts, $1,335,000 to Cornell.

BOOKS

1. S.P. Ellner, D.Z. Childs, and M. Rees. **2016.** Data-driven Modeling of Structured Populations: a Practical Guide to the Integral Projection Model. Springer.
2. S.P. Ellner and J. Guckenheimer. **2006**. Dynamic Models in Biology. Princeton U. Press.

REFEREED PUBLICATIONS 2010 and later (for earlier publications see p. 13)

1. WH Ng, CR Myers, S McArt, SP Ellner. **2023**. A time for every purpose: using time-dependent sensitivity analysis to help understand and manage dynamic ecological systems. American Naturalist 202: 630-654.
2. M. Yamamichi, S.P. Ellner, N.G. Hairston Jr. **2023**. Beyond simple adaptation: Incorporating other evolutionary processes and concepts into eco-evolutionary dynamics. Ecology Letters 26: S16-S21.
3. W.H. Ng, C.R. Myers, S.H. McArt, S.P. Ellner. **2023**. **tdsa:** An R package for time-dependent sensitivity analysis. Methods in Ecology and Evolution 14: 2758-2765.
4. T.D. Lambert, P.B. McIntyre, K.N. Moody, and S.P. Ellner. **2023**. Optimizing invader suppression to restore native species: leveraging species traits to overcome collateral damage. Journal of Applied ecology 60: 2636-2651.
5. A.J. Poulton, S.A. Sethi, S.P. Ellner, T.S. Smeltz Jr. **2023.** Optimal dynamic spatial closures can improve fishery yield and reduce fishing-induced habitat damage. Canadian Journal of Fisheries and Aquatic Sciences 80: 893–912. DOI 10.1139/cjfas-2022-0198.
6. C. M. Hernández, S.P. Ellner, P. B. Adler, G. Hooker, R. E. Snyder. **2023**. An exact version of Life Table Response Experiment analysis, and the R package **exactLTRE**. Methods in Ecology and Evolution 14: 939-951. DOI: 10.1111/2041-210X.14065.
7. W. H. Ng, C.R. Myers, S. McArt, S.P. Ellner. **2023.** Predicting and Controlling Spillover in Multi-Species Disease Transmission Networks: Steady-State Analysis. American Naturalist 201: 880-894. DOI 10.1086/724009.
8. J.W. Spaak, P.B. Adler, and S.P. Ellner. **2023.** Mechanistic models of trophic interactions: opportunities for species richness and challenges for modern coexistence theory. American Naturalist 202, E1 – E16. DOI 10.1086/724660.
9. J.W. Spaak, P.B. Adler, and S.P. Ellner. **2023**. Continuous assembly required: Perpetual species turnover in two-trophic-level ecosystems. Ecosphere 14(7): e4614. DOI: 10.1002/ecs2.4614.
10. C.B. Edwards, S.P. Ellner, and A. A. Agrawal. **2023**. Plant defense synergies and antagonisms affect performance of specialized herbivores of common milkweed. Ecology 104: e3915. DOI 10.1002/ecy.3915.
11. S.P. Ellner, R.E. Snyder, P.B. Adler, and G. Hooker. **2022**. Towards a ``Modern Coexistence Theory" for the discrete and spatial. Ecological Monographs 92, e1548. doi: 10.1002/ecm.1548.
12. R.E. Snyder and S.P. Ellner. **2022.** Snared in an evil time: how age-dependent environmental and demographic variability contribute to variance in lifetime outcomes. American Naturalist 200: E124 - E140. doi: 10.1086/720411.

13. S.P. Ellner, P.B. Adler, D.Z. Childs, G. Hooker, T. E. X. Miller, & M. Rees. **2022.** A critical comparison of integral projection and matrix projection models for demographic analysis: Comment. Ecology. doi: 10.1002/ecy.3605.
14. W-H Ng, C.R. Myers, S.H. McArt, & S.P. Ellner. **2022**. Pathogen transport amplifies or dilutes disease transmission depending on the host dose-response relationship. Ecology Letters 25: 453-465**.** DOI:10.1111/ele.13932.
15. B.D. Dalziel, M. Novak, J.R. Watson & S.P. Ellner. **2021**. Collective behavior can stabilize ecosystems. Nature Ecology & Evolution 5: 1435–1440. DOI:10.1038/s41559-021-01517-w
16. S.P. Ellner, N. Buchon, T. Dörr, and B.P. Lazzaro. **2021**. Host-pathogen immune feedbacks can explain widely divergent outcomes from similar infections. Proceedings of the Royal Society B: Biological Sciences 288, 20210786. DOI: 10.1098/rspb.2021.0786.
17. Z. Ye, G. Hooker, and S.P. Ellner. **2021**. Generalized Single Index Models and Jensen Effects on Reproduction and Survival. Journal of Agricultural, Biological, and Environmental Statistics 26: 492–512. DOI: 10.1007/s13253-021-00452-4.
18. R. E. Snyder, S.P. Ellner and G. J. Hooker. **2021**. Time and chance: using age partitioning to understand how luck drives variation in reproductive success. American Naturalist 197: E110–E128. DOI: 10.1086/712874.
19. A.T. Tredennick, G. Hooker, S. P. Ellner and Peter B. Adler. **2021**. A practical guide to selecting models for exploration, inference, and prediction in ecology. Ecology 102: e03336. DOI: 10.1002/ecy.3336.
20. Z. Ye, G. Hooker, and S.P. Ellner. **2020**. The Jensen effect and functional single index models: Estimating the ecological implications of nonlinear reaction norms. Annals of Applied Statistics 14: 1326-1341.
21. S.P. Ellner, R.E. Snyder, P.B. Adler, G. Hooker, S.J. Schreiber. **2020**. Technical Comment on Pande et al. (2020): Why invasion analysis is important for understanding coexistence. Ecology Letters, 23 (11), 1721-1724. DOI: 10.1111/ele.13580.
22. S. P. Ellner, W-H Ng, and C. R. Myers. **2020.** Individual specialization and multi-host epidemics: disease spread in plant-pollinator networks. American Naturalist 195: E118–E131. DOI: 10.1086/708272
23. L R Schaffner, L Govaert, L De Meester, S P Ellner, E Fairchild, B E Miner, L G Rudstam, P Spaak, N G Hairston Jr. **2019.** Consumer-resource dynamics is an eco-evolutionary process in a natural community. Nature Ecology & Evolution 3: 1351-1358.
24. M. Rees and S.P. Ellner. **2019**. Why so variable: can genetic variance in flowering thresholds be maintained by fluctuating selection? American Naturalist 194: E13-E29.
25. L.L. Truitt, S.H. McArt, A.H. Vaughn, and S.P. Ellner. **2019**. Trait-based modeling of multi-host pathogen transmission: plant-pollinator networks. American Naturalist 193: E149-E167.
26. M. Yamamichi, N.G. Hairston Jr., M. Rees, and S.P. Ellner. **2019**. Rapid evolution with generation overlap: the double-edged effect of dormancy. Theoretical Ecology 12(2): 179–195.
27. S.P. Ellner, R.E. Snyder, P.B. Adler, and G. J. Hooker **2019**. An expanded Modern Coexistence Theory for empirical applications. Ecology Letters 22: 3-18. doi:10.1111/ele.13159.
28. A.T. Tredennick, B. J. Teller, P. B. Adler, G. Hooker and S.P. Ellner. **2018.** Size-by-environment interactions: a neglected dimension of species' responses to environmental variation. Ecology Letters 21: 1757-1770. DOI: 10.1111/ele.13154
29. L.S. Adler, K.M. Michaud, S.P. Ellner, S.H. McArt, P.C. Stevenson and R.E. Irwin. **2018**. Disease where you dine: plant species and floral traits associated with pathogen transmission in bumble bees. Ecology 99: 2535-2545.

30. P.B. Adler, A. Kleinhesselink, G. Hooker, J. B. Taylor, B. Teller, and S.P. Ellner. **2018**. Weak interspecific interactions in a sagebrush steppe? Conflicting evidence from observations and experiments. Ecology 99: 1621–1632.
31. S.P. Ellner. **2018**. Generation time in structured populations. American Naturalist 192: 105–110. https://doi.org/10.1086/697539.
32. R.E. Snyder and S.P. Ellner. **2018.** Pluck or luck: does trait variation or chance drive variation in lifetime reproductive success? American Naturalist 191: E90-E107. https://doi.org/10.1086/696125
33. H. Inamine, S.P. Ellner, P. D. Newell, Y. Luo, N. Buchon and A.E. Douglas. **2018**. Spatiotemporally heterogeneous population dynamics of gut bacteria inferred from fecal time-series data. mBio 9:e01453-17. https://doi.org/10.1128/mBio.01453-17.
34. S.P. Ellner, R.E. Snyder, and P.B. Adler. 2016. How to quantify the temporal storage effect using simulations instead of math. Ecology Letters 19: 1333–1342. doi:10.1111/ele.12672
35. P.W. Messer, S.P. Ellner, and N.G. Hairston, Jr. 2016. Can population genetics adapt to rapid evolution? Trends in Genetics 32: 408-417.
36. R.E. Snyder and S.P. Ellner. 2016. We happy few: using structured population models to identify the decisive events in the lives of exceptional individuals. American Naturalist 188: E28-E45.
37. Holden, M.H. and S.P. Ellner. 2016. Human judgment vs. quantitative models for the management of ecological resources. Ecological Applications 26: 1553–1565.
38. Holden, M.H., J.P. Nyrop, S.P. Ellner. 2016. The economic benefit of time-varying surveillance effort for invasive species management. Journal of Applied Ecology 53: 712-721.
39. H. Inamine, S. P. Ellner, J. P. Springer and A. A. Agrawal. 2016. Linking the continental migratory cycle of the monarch butterfly to understand its population decline. Oikos 125: 1081–1091. doi: 10.1111/oik.03196
40. M. Yamamichi and S.P. Ellner. 2016. Antagonistic coevolution between quantitative and Mendelian traits. Proceedings of the Royal Society B 283: 20152926. doi: 10.1098/rspb.2015.2926
41. B.J. Teller, P. B. Adler, C.B. Edwards, G. Hooker and S. P. Ellner. 2016. Linking demography with drivers: climate and competition. Methods in Ecology and Evolution 7: 171-183. doi: 10.1111/2041-210X.12486.
42. M. Rees and S. P. Ellner. 2016. Evolving integral projection models: evolutionary demography meets eco-evolutionary dynamics. Methods in Ecology and Evolution 7: 157 - 170 doi: 10.1111/2041-210X.12487
43. B.D. Dalziel, M. Le Corre, S. Côté, and S.P. Ellner. 2016. Detecting collective behaviour in animal relocation data, with application to migrating caribou. Methods in Ecology and Evolution 7: 30-41. doi: 10.1111/2041-210X.12437.
44. E. Benincà, B. Ballantine, S. P. Ellner, and J. Huisman. 2015. Species fluctuations sustained by a cyclic succession at the edge of chaos. Proceedings of the National Academy of Sciences (USA) 112: 6389–6394.
45. G. Hooker and S. P. Ellner. 2015. Goodness of fit in nonlinear dynamics: mis-specified rates or mis-specified states? Annals of Applied Statistics 9(2): 754-776.
46. I. N. Rubin, S.P. Ellner, A. Kessler, and K. A. Morrell. 2015. Informed herbivore movement and interplant communication determine the effects of induced resistance in an individual-based model. Journal of Animal Ecology 84, 1273–1285.
47. C. J. E. Metcalf, S. P. Ellner, D. Z. Childs, R. Salguero-Gómez, C. Merow, S. M. McMahon, E. Jongejans and M. Rees. 2015. Statistical modeling of annual variation for inference on stochastic population dynamics using Integral Projection Models. Methods in Ecology and Evolution 6: 1007-1017.

48. P.J. Hurtado, S.R. Hall and S.P. Ellner. 2014. Infectious disease in consumer populations: dynamic consequences of resource-mediated transmission and infectiousness. Theoretical Ecology 7:163–179, doi: 10.1007/s12080-013-0208-2
49. M. Rees, D. Z. Childs and S. P. Ellner. 2014. Building integral projection models: a user's guide. Journal of Animal Ecology 83: 528–545. doi: 10.1111/1365-2656.12178
50. T. Hiltunen, N. G.Hairston Jr, G. Hooker, L.E. Jones and S. P. Ellner. 2014. A newly discovered role of evolution in previously published consumer-resource dynamics. Ecology Letters. 17: 915–923. doi: 10.1111/ele.12291
51. B. D. Dalziel, K. Huang, J. L. Geoghegan, N. Arinaminpathy, E. J. Dubovi, B. T. Grenfell, S. P. Ellner, E. C. Holmes, C.R. Parrish. 2014. Contact heterogeneity, rather than transmission efficiency, limits the emergence and spread of canine influenza virus. PLoS Pathogens 10(10): e1004455. doi:10.1371/journal.ppat.1004455.
52. T. Hiltunen, S.P. Ellner, G. Hooker, L.E. Jones, and N.G. Hairston, Jr.. 2014. Eco-Evolutionary Dynamics in a Three-Species Food Web with Intraguild Predation: Intriguingly Complex. Advances in Ecological Research 50: 41-73.
53. T. Hiltunen, , L.E. Jones, S.P. Ellner, and N.G. Hairston, Jr. 2013. Temporal dynamics of a simple community with intraguild predation: an experimental test. Ecology 94, 773-779.
54. C. Low, S. P. Ellner, and M. H. Holden. 2013. Optimal control and cold war dynamics between plant and herbivore. American Naturalist 182: E25-E39.
55. S.P. Ellner. 2013. Rapid evolution: from genes to communities, and back again? Functional Ecology 27: 1087-1099.
56. B. D. Dalziel, B. Pourbohloul and S. P. Ellner. 2013. Human mobility patterns predict divergent epidemic patterns among cities. Proceedings of the Royal Society B 280: 20130763 doi: 10.1098/rspb.2013.0763.
57. S.P. Ellner and S.J. Schreiber. 2012. Temporally variable dispersal and demography can accelerate the spread of invading species. Theoretical Population Biology 82: 283-298.
58. R. J. Tien and S.P. Ellner. 2012. Variable cost of prey defense and coevolution in predator–prey systems. Ecological Monographs 82: 491–504.
59. P. B. Adler, H. J. Dalgleish, and S.P. Ellner. 2012. Forecasting plant community impacts of climate variability and change: when do competitive interactions matter? Journal of Ecology 100: 478-487.
60. L. Becks, S.P. Ellner, L.E. Jones, and N.G. Hairston, Jr. 2012. The functional genomics of an eco-evolutionary feedback loop: linking gene expression, trait evolution, and community dynamics. Ecology Letters 15: 492-501.
61. J.L. Williams, T.E.X. Miller, and S.P. Ellner. 2012. Avoiding unintentional eviction from integral projection models. Ecology 93: 2008-2014
62. M.H. Holden, S.P. Ellner, D-H Lee, J.P. Nyrop, and J.P. Sanderson. 2012. Designing an effective trap cropping strategy: the effects of attraction, retention and plant spatial distribution. Journal of Applied Ecology 49: 715-722.
63. E.G. Cooch, P.B. Conn, S.P. Ellner, A.Dobson, and K.H. Pollock. Disease dynamics in wild populations: modeling and estimation: a review. Journal of Ornithology 152 (Supplement 2): S485-S509.
64. S. P. Ellner. 2012. Comments on: Inference for size demography from point pattern data using Integral Projection Models. Journal of Agricultural, Biological, and Environmental Statistics 17: 682–689.
65. S.P. Ellner, M.A. Geber, and N.G. Hairston, Jr. 2011. Does rapid evolution matter? Measuring the rate of contemporary evolution and its impacts on ecological dynamics Ecology Letters 14: 603–614.
66. J.F. Bruno, S. P. Ellner, I. Vu, K. Kim, and C. D. Harvell. 2011. Impacts of aspergillosis on sea fan coral demography: modeling a moving target. Ecological Monographs 81:123-139.

67. E. Jongejans, K. Shea, O. Skarpaas, D. Kelly, and S. P. Ellner. 2011. Importance of individual and environmental variation for invasive species spread: a spatial integral projection model. Ecology 92:86-97.
68. G. Hooker, S. P. Ellner, L. De Vargas Roditi and D. J. D. Earn. 2011. Parameterizing state–space models for infectious disease dynamics by generalized profiling: measles in Ontario. Journal of the Royal Society Interface 8: 961-974.
69. S.P. Ellner and L. Becks. 2011. Rapid prey evolution and the dynamics of two-predator food webs. Theoretical Ecology 4:133–152.
70. Maarika Teose, Kiyan Ahmadizadeh, Eoin O'Mahony, Rebecca L. Smith, Zhao Lu, Stephen P. Ellner, Carla Gomes, Yrjo Grohn. 2011. Embedding System Dynamics in Agent Based Models for Complex Adaptive Systems. Proceedings of the Twenty-Second International Joint Conference on Artificial Intelligence 2531-2538. doi: 10.5591/978-1-57735-516-8/IJCAI11-421
71. L. Becks, S. P. Ellner, L. E. Jones, and N. G. Hairston, Jr. 2010 Reduction of adaptive genetic diversity radically alters eco-evolutionary community dynamics. Ecology Letters 13: 989 – 997.
72. P. B. Adler, S.P. Ellner and J. M. Levine. 2010 Coexistence of perennial plants: an embarrasment of niches. Ecology Letters 13: 1019-1029.
73. V.B. Pasour and S.P. Ellner. 2010. Computational and analytic perspectives on the drift paradox. SIAM Journal on Applied Dynamical Systems 9: 333-356.
74. J. Mao-Jones K.B. Ritchie, L.E. Jones and S.P. Ellner. 2010. How Microbial Community Composition Regulates Coral Disease Development. PLoS Biol 8(3):e1000345.
75. M.H. Cortez and S.P. Ellner. 2010. Understanding rapid evolution in predator-prey interactions using the theory of fast-slow dynamical systems. American Naturalist 176: E109–E127.

PREVIOUS RESEARCH GRANTS

- DHHS (NIH-NIH NIGHS) "Transmission networks in trait-based communities: Implications for bee disease" (co-PI; lead PI Scott McArt, Cornell Entomology). 2016-2020.
- US National Science Foundation, Division of Environmental Biology. "Integral Projection Models for Populations in Varying Environments - Construction and Analysis" (PIs S.P. Ellner, G. Hooker, P.B. Adler, R. Snyder). 2014-2019.
- US National Science Foundation, Division of Environmental Biology. "Effects of Rapid Consumer Evolution on Community Dynamics: Predictions and Tests in a (nearly) Natural Food Web" (PIs Nelson G. Hairston, Jr., S.P. Ellner, G.Hooker, B.P. Lazzaro, G. Hooker). 2013-2016, $200,000.
- National Science Foundation "Rapid Evolution and the Dynamics of Complex Ecological Communities" (co-PIs Nelson G. Hairston Jr., L.E. Jones, and G.Hooker). 2008 - 2012.
- James S. McDonnell Foundation. "Contemporary rapid evolution: dynamics and persistence in complex ecological communities" (co-PIs Nelson G. Hairston Jr., L.E. Jones and G.F Fussmann) 2008 - 2012.
- Andrew W. Mellon Foundation, "The evolutionary ecology of population dynamics: experimental and modeling approaches" (co-PI with Nelson G. Hairston, Jr.), 2004-2008.
- NSF/NIH (Ecology of Infectious Diseases) "Origins and Spread of the Aspergillus - Gorgonian Coral Epizootic: Role of Climate and Environmental Facilitators" (co-PI with C. Drew Harvell and 4 others) 2003- 2009.
- NSF (DEB Systematics and Population Biology) "Long term diapause and spreading of risk across the life cycle: testing predictions" (co-PI with Nelson G. Hairston, Jr.) 1999 – 2003.

- Andrew W. Mellon Foundation, "Evaluating Complex Dynamics and Chaos in Natural Ecological Systems: Experimental, Statistical, and Modeling Approaches" (co-PI with Nelson G. Hairston, Jr.), 1997-2003.
- NSF Grant DMS-9217866, "Estimation and inference for noisy nonlinear systems" (co-PIs D. Nychka and A. R. Gallant), 1993-1997.
- NSF SGER Grant "Real population data for evaluating chaos detection methods" (co-PI Nelson G. Hairston, Jr.), 1995-1996.
- NSF Grant BSR-9118894 "The evolutionary dynamics of a dormant propagule pool" (co-PI Nelson G. Hairston, Jr.), 1992-1995.
- US-Israel BARD Grant IS-1634-89R, "Use of macroalgae to solve water quality problems in intensively cultured marine fishponds" (co-investigator with A. Neori, M. Krom, and C. Boyd), 1990-1994.
- US-Israel Binational Science Foundation Grant 86-00092, "Optimal Dispersal in a Desert Widow Spider" (co-PIs Y. D. Lubin and B. Pinshow), 1987-1990.
- NC State Biomedical Research Support Grant RR7071 (1986-1987).
- BARD research project I-626-83, co-investigator (1986).
- University of Tennessee Faculty Research Award (1982-1983).
- NSF Grant MCS-8201682 (1982-1983).

INVITED TALKS (2010 and later)

2023
- NOAA Southwest Fisheries Science Center, La Jolla, CA (remote seminar)

2022
- NOAA Northwest Fisheries Science Center, Seattle WA (remote seminar)
- Research Institute for Limnology, University of Innsbruck, Mondsee Austria (remote seminar)

2021
- International Initiative in Theoretical Ecology Webinar series (https://iite.info/seminar/)

2020
- EEID Seminar, University of California, Berkeley (remote seminar)
- Invited Poster, "Leading Ecologists Spotlight" poster session, Ecological Society of America Annual Meeting.
- Invited talks at Yale University and University of Tennessee cancelled due to COVID.

2019
- Department of Zoology, Oxford University

2018
- International Statistical Ecology Conference, Univ. of St. Andrews (plenary)
- Workshop on Pollination Ecology, Fields Institute for Mathematical Sciences, University of Toronto
- Midwest Mathematical Ecology Conference, Univ. Wisconsin- La Crosse (plenary)

2017
- Odum School of Ecology, University of Georgia (grad student invited speaker)

2016
- Department of Biology, University of Calgary.

- Workshop on Integrodifference Equations in Ecology, Pacific Institute of Mathematical Sciences, Banff International Research Station.

2015
- British Ecological Society Symposium "Demography Beyond the Population", University of Sheffield, UK (plenary).
- Ecological Society of America, Annual Meeting, Baltimore MD (Organized Oral Session presentation).

2014
- Workshop on Statistics and Nonlinear Dynamics in Biology and Medicine, Banff International Research Station (plenary)

2013
- INTECOL 2013/British Ecological Society Annual Meeting, London UK (invited symposium talk)
- Department of Ecology & Evolutionary Biology, Princeton University.

2012
- Tansley Lecture, British Ecological Society Annual Meeting, Birmingham UK (plenary)
- Conference on Mathematical Ecology, University of Nebraska, Lincoln
- Workshop on Integral Projection Models, Max Planck Institute for Demographic Research, Rostock, Germany.
- Biology Department, Penn State University

2011
- Departments of Ecology and Evolution, UC Davis.
- Ecological Society of America Annual Meeting, Austin TX (invited symposium talk)

2010
- Mathematical Biology seminar, Departments of Biology and Mathematics, Georgia Tech.
- Mathematical Biosciences Institute, Ohio State

OTHER PROFESSIONAL ACTIVITIES
- Cornell service: EEB Department Executive Committee (2022-2023); EEB Department Awards Committee (2019-2023); CAS Nominating Committee (2021-2023); CALS Task Force on Data Science (2019); Research Advisory Committee, Office of the Vice Provost for Research (2014-2017); Director of Undergraduate Studies for Computational Biology (2006-2010), Center for Applied Mathematics Colloquium Committee (2000-01), FCI Subcommittee on Computational Biology (2000-01), FCI Subcommittee on Computational Science and Engineering (2000-01), Transition Committee for Department of Biostatistics and Computational Biology (2001-02).
- Editorial boards: *PLoS Biology* (2003-2012), *Ecology Letters* (2006-2009), *Journal of Animal Ecology* (2001-2005), *Evolutionary Ecology Research* (2001-2005), *Journal of Theoretical Biology* (2000-2003), *Theoretical Population Biology* (1989-2000), *Ecology/Ecological Monographs* (1994-97).
- Manuscript reviews for *Science, Nature, PNAS, American Naturalist, Ecology, Ecology Letters, Oikos, Methods in Ecology and Evolution, Journal of Ecology, Journal of Animal Ecology, Theoretical Ecology, Proc. Royal Society B, Biometrics, Journal of Mathematical Biology, Bulletin of Mathematical Biology, Theoretical Population Biology, Journal of Agricultural Biological and Environmental Statistics, Canadian Journal of Fisheries and Aquatic Sciences,* and others.
- Grant proposal reviews for NSF, USDA, NSERC (UK and Canada), Israel Science Foundation, Swiss National Science Foundation, various EU funding initiatives, and other agencies.
- NSF proposal and preproposal panels in DEB and DMS.

- Organizing committee, SIAM Conference on Life Sciences/Society for Mathematical Biology annual meeting, August 2006.
- Organizing and program committee, Society for Mathematical Biology annual meeting, August 1997.
- Board of Directors, Society for Mathematical Biology 1996-1998.

POSTDOCS SUPERVISED (and current positions)

- Akira Sasaki (1992-1994). Professor, Graduate University for Advanced Studies (SOKENDAI), Hayama, Japan.
- Dariouche Babaï (1994-1995). No longer active in science for medical reasons.
- Yodit Seifu (1996-1997). Research statistician, Allergan.
- Gregor Fussmann (1998-2001, jointly supervised by Nelson G. Hairston, Jr.). Professor, McGill University, Montreal CA.
- Takehito Yoshida (2001-2006, jointly supervised by Nelson G. Hairston, Jr.). Associate Professor, University of Tokyo.
- Lutz Becks (2006-2008, jointly supervised by Nelson G. Hairston, Jr.). Professor of Limnology, University of Konstanz, Germany
- Teppo Hiltunen (2008-2011, jointly supervised by Nelson G. Hairston, Jr.). Academy Research Fellow and Associate Professor, Turku University, Finland.
- Candace Low (2010-2012), Lecturer, San Francisco State University.
- Masato Yamamichi (2012-2014, jointly supervised by Nelson G. Hairston, Jr). Associate Professor, Center for Frontier Research, National Institute of Genetics/Graduate Institute for Advanced Studies SOKENDAI.
- Brittany Teller (2014-2017, jointly supervised by Peter Adler, Utah State). Instructor and undergraduate advisor, Penn State University.
- Andrew Tredennick (2017-2018, jointly supervised by Peter Adler, Utah State). Biometrician at Western EcoSystems Technology, Inc., Fort Collins, CO.
- Ng, Wee Hao (2016 – 2022, jointly supervised by Scott McArt and Chris Myers, Cornell). Research Associate, Department of Entomology, Cornell.
- Christina M. Hernández, (2021-2023, jointly supervised by Giles Hooker, Cornell). Postdoc, Department of Biology, Oxford University

GRADUATE STUDENTS SUPERVISED (committee chair or **co-chair)

Patricia L. Phillips	Biomathematics, NCSU	MBMA* 1991
Gretchen Marcucci	Biomathematics, NCSU	M.Sc. 1991
Ana Henry	Biomathematics, NCSU	M.Sc. 1992
Michael Easterling	Biomathematics, NCSU	M.Sc. 1994; PhD 1998
George Hess	Biomathematics, NCSU	PhD 1994
Jack Weiss**	Biomathematics, NCSU	PhD 1995
Barbara Bailey**	Biomathematics, NCSU	PhD 1996
Steven Peck	Biomathematics, NCSU	PhD 1997
Georgiy Bobashev	Biomathematics, NCSU	PhD 1997
Daniel Fiscus	Ecology, NCSU	MSc 1997
Paul Schliekelman	Biomathematics, NCSU	MBMA* 1998, PhD 2000
John Fieberg	Biomathematics, NCSU	PhD 2000
Kyle Shertzer	Biomathematics, NCSU	PhD 2001
Nikkala Thomson	Biomathematics, NCSU	MSc 2002
Jonathan Rowell	Biomathematics, NCSU Applied Mathematics, Cornell	MBMA* 2000 PhD 2003
Takao Kumazawa	E&EB, Cornell	MSc 2005
Virginia Pasour	Applied Mathematics, Cornell	PhD 2006
Rebecca Tien**	E&EB, Cornell	PhD 2009
Paul Hurtado	Applied Mathematics, Cornell	PhD 2012
Michael Cortez**	Applied Mathematics, Cornell	PhD 2011
Ben Dalziel	E&EB, Cornell	PhD 2014
Matthew Holden	Applied Mathematics, Cornell	PhD 2015
Hidetoshi Inamine	E&EB, Cornell	PhD 2017
Collin Edwards	E&EB, Cornell	PhD 2019
Timothy Lambert	E&EB, Cornell	PhD 2023
Timothy Salazar**	E&EB, Cornell	PhD in progress
Anna Poulton	Applied Mathematics, Cornell	PhD in progress

**MBMA is the non-thesis Masters option from the NC State University Biomathematics Program.*

Current employment of past PhD students

- Timothy Lambert, US Fish and Wildlife Service, Turner Falls, MA: postdoc.
- Collin Edwards, Washington State Department of Fish and Wildlife: Data scientist.
- Hidetoshi Inamine, Penn State University: postdoc
- Matthew Holden, University of Queensland, Australia: Senior Lecturer in Mathematics.
- Ben Dalziel, Oregon State University: Associate Professor, Departments of Integrative Biology and Mathematics.
- Paul Hurtado, Department of Mathematics and Statistics, University of Nevada, Reno: Associate Professor
- Michael Cortez, Department of Biology, Florida State University: Associate Professor.
- Rebecca Tien: photographer.
- Virginia Pasour, US Army Research Office, Research Triangle Park NC: Program Officer for Mathematical Biology.
- Jonathan Rowell, Department of Mathematics and Statistics, UNC Greensboro: Associate Professor.
- Paul Schliekelman, Department of Statistics, University of Georgia: Associate Professor.
- Kyle Shertzer, NOAA/NMFS Center for Coastal Fisheries and Habitat Research, Beaufort NC: Leader of Population Dynamics and Sustainable Fisheries Branch.
- John Fieberg, Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota: Professor.
- Michael Easterling, Constella Group, Research Triangle Park, NC: Biomathematician.
- Barbara Bailey, Department of Mathematics and Statistics, San Diego State University: Associate Professor.
- Jack Weiss: deceased (previously, Program in Ecology, UNC Chapel Hill: statistician).
- Georgiy Bobashev, Research Triangle Institute, Durham, North Carolina: Senior Data Scientist.
- Steve Peck, Department of Biology, Brigham Young University, Associate Professor.
- George Hess, Department of Forestry, North Carolina State University: Professor

GRADUATE STUDENT COMMITTEES

Carole Hom	Ecology, UT Knoxville	PhD 1986
Margaret Cochran	Ecology, UT Knoxville	PhD 1986
Katherine Potak	Biomathematics, NCSU	MBMA* 1992
Daniel McCaffrey	Statistics, NCSU	PhD 1991
Reuven Dukas	Zoology, NCSU	PhD 1991
Jane Molofsky	Botany, Duke	PhD 1992
Bernadette Roche	Biology, UNC-Chapel Hill	PhD 1993
Erran Seaman	Zoology, NCSU	PhD 1993
Selena Heppell	Zoology, NCSU	MSc 1993
Susan Wigley	Biomathematics, NCSU	MSc 1994
Ben Letcher	Zoology, NCSU	PhD 1994
Juan Morales	Zoology, NCSU	MSc 1999
David Hiebeler	Applied Mathematics, Cornell	Ph.D. 2001
Hinsby Quiroz-Caudillo	Microbiology, Cornell	PhD 2008
Kristi Arend	Natural Resources, Cornell	PhD 2008
Sam Arbesman	Computational Biology, Cornell	PhD 2008
Rebecca Doyle-Morin	E&EB, Cornell	PhD 2011
Michael Schmidt	Computational Biology, Cornell	PhD 2011
Joseph Simonis	E&EB, Cornell	PhD 2012
Patrick Ayscue	Veterinary Medicine, Cornell	VMD 2013
Katherine Marchetto	E&EB, Cornell	PhD 2017
Aubrie James	E&EB, Cornell	PhD 2019
Gregor Fausto-Siegmund	E&EB, Cornell	PhD 2022
Zi Ye	BSCB, Cornell	PhD 2019
Toby Holda	Natural Resources, Cornell	PhD in progress
Marissa Gee	Applied Mathematics, Cornell	PhD in progress

** Non-thesis Masters, NC State University Biomathematics Program.*

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