

Charlotte T. Lee

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Education

Ph.D. Ecology, University of California, Davis, December 2002. Dissertation title: “Modeling movement: theoretical descriptions and consequences of long-distance dispersal.”
A.B. Ecology and Evolutionary Biology, Princeton University, 1996.

Academic positions

2009 – present Assistant professor, Florida State University, Tallahassee, FL
2007 – 2009 Research fellow, Florida State University, Tallahassee, FL
2006 – 2007 Postdoctoral researcher, University of Arizona, Tucson, AZ
2002 – 2006 Postdoctoral researcher, Stanford University, Stanford, CA

Grants and fellowships

2010 First Year Assistant Professor Award, Florida State University (\$17,000)
2007 - 2009 Society in Science: The Branco Weiss Fellowship (~\$186,000 total)
2001 - 2002 UC Davis Graduate Studies Dissertation Year Fellowship (~\$22,000 total)
1997 - 2002 Trainee, NSF Research Training Grant in Nonlinear Dynamics in Biology, UC Davis (~\$40,000 total)
1998 - 2001 Block Grant Fellowship, Graduate Group in Ecology, UC Davis (~\$25,000 total)
2000 Jastro Shields Research Grant, College of Agriculture and Environmental Science, UC Davis (~\$2,000)
1996 - 1997 UC Davis Graduate Studies Nonresident Tuition Fellowship (~\$8,400)

Publications

In press **Lee, CT.** Demography. In A. Hastings and L. Gross, eds. Encyclopedia of Theoretical Ecology. University of California Press, forthcoming. *Invited contribution*
2012 P. V. Kirch, G. Asner, O. A. Chadwick, J. Field, T. Ladefoged, **C. Lee**, C. Puleston, S. Tuljapurkar, and P. M. Vitousek. Building and testing models of long-term agricultural

intensification and population dynamics: A case study from the leeward Kohala Field System, Hawai'i. *Ecological Modelling* 227: 18-28.

- 2011 **Lee, CT**, TEX Miller, and BD Inouye. Consumer effects on the vital rates of their resource can determine the outcome of competition between consumers. *The American Naturalist* 178:452-463 *Recommended by Faculty of 1000*
- Lee, CT**, and S Tuljapurkar. Quantitative, dynamic models to integrate environment, population, and society. Pages 111-133 in Kirch, PV, ed. *Roots of Conflict: Soils, Agriculture, and Sociopolitical Complexity in Ancient Hawai'i*. School of Advanced Research Press, Santa Fe, New Mexico. *Invited contribution*
- 2010 **Lee, CT**, and BD Inouye. 2010. Mutualism between consumers and their shared resource can promote competitive coexistence. *The American Naturalist* 175: 277-288. *Recommended by Faculty of 1000*
- 2009 **Lee, CT**, CO Puleston, and S Tuljapurkar. 2009. Population and prehistory III: Food-dependent demography in variable environments. *Theoretical Population Biology* 76: 179-188.
- 2008 **Lee, CT**, and S Tuljapurkar. 2008. Population and prehistory I: Food-dependent population growth in constant environments. *Theoretical Population Biology* 73: 473-483.
- Donahue, MJ, and **CT Lee**. 2008. Colonization. Pages 672-278 in SE Jorgensen and BD Fath (Editor-in-Chief), *General Ecology*. Vol. 1 of *Encyclopedia of Ecology*, 5 vols. Oxford: Elsevier. *Invited contribution*
- Ladefoged, TN, **CT Lee**, and MW Graves. 2008. Modeling life expectancy and surplus production of dynamic pre-contact territories in leeward Kohala, Hawai'i. *Journal of Anthropological Archaeology* 27: 93-110.
- Morris, WF, CA Pfister, S Tuljapurkar, CV Haridas, CL Boggs, MS Boyce, EM Bruna, DR Church, T Coulson, DF Doak, S Forsyth, J-M Gaillard, CC Horvitz, S Kalisz, BE Kendall, TM Knight, **CT Lee**, and ES Menges. 2008. Longevity can buffer plant and animal populations against changing climatic variability. *Ecology* 89 (1): 19-25.
- 2007 Tuljapurkar, S, **CT Lee**, and M Figgs. 2007. Demography and food in early Polynesia. Pages 35-51 in Kirch, PV, and J.-L. Rallu, eds. *The Growth and Collapse of Island Societies: Archaeological and Demographic Perspectives from the Pacific*. Honolulu: University of Hawai'i Press. *Invited contribution*
- 2006 **Lee, CT**, and A Hastings. 2006. Non-equilibrium genetic structure is robust to the shape of the dispersal distribution. *Evolutionary Ecology Research* 8: 279-293.
- Lee, CT**, S Tuljapurkar, and P Vitousek. 2006. Risky business: spatial and temporal variation in preindustrial dryland agriculture. *Human Ecology* 34 (6): 739-763.

Boyce, MS, CV Haridas, **CT Lee**, C. L. Boggs, E. M. Bruna, T. Coulson, D. Doak, J. M. Drake, J.M. Gaillard, C.C. Horvitz, S. Kalisz, B.E. Kendall, T. Knight, E.S. Menges, W.F. Morris, C.A. Pfister, and S. D. Tuljapurkar. 2006. Demography in an increasingly variable world. *Trends in Ecology and Evolution* 21: 141-148.

2005 and prior Chesson, P, and **CT Lee**. 2005. Families of discrete kernels for modeling dispersal. *Theoretical Population Biology* 67 (4): 241-256.

Lee, CT, MF Hoopes, J Diehl, W Gilliland, G Huxel, EV Leaver, K McCann, J Umbanhowar, and A Mogilner. 2001. Non-local concepts and models in biology. *Journal of Theoretical Biology* 210: 201-219.

Invited presentations and workshops

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| 11/2011 | Selected participantt, NSF ADVANCE Workshop, Women Evolving Biological Sciences, National Evolutionary Synthesis Center. |
| 02/2010 | Department of Wildlife Ecology and Conservation, University of Florida. "Food-dependent demography: integrating human population and environment in preindustrial societies." |
| 10/2009 | Department of Biological Science, Florida State University. "Interacting with class: Nonlinear feedbacks in structured populations." |
| 12/2008 | Society in Science Annual Meeting, Collegium Helveticum, Swiss Federal Institute of Technology Zurich. "Quantitative dynamic models to integrate population, environment, and society." |
| 08/2008 | Organized Oral Symposium, Ecological Society of America 93 rd Annual Meeting, Milwaukee, WI. "Food-dependent demography: integrating environment and population." |
| 05/2008 | Invited lecturer, Stanford Workshop in Formal Demography, Stanford University |
| 02/2008 | School of Life Sciences, Arizona State University. "Food, labor, and environment: dynamic models for the demography of subsistence populations." |
| 12/2007 | Division of Biology, Imperial College London at Silwood Park. "The dynamics of coupled human-natural systems." |
| 05/2006 | Department of Biological Science, Florida State University. "Temporal and spatial variation and risk in preindustrial agricultural societies." |
| 11/2005 | Bay Area Colloquium in Population, Department of Demography and Institute for International Studies, University of California, Berkeley. "Temporal and spatial variation and risk in preindustrial agricultural societies." |
| 12/2003 | Richard B. Gump Mo'orea Field Station, University of California, Berkeley. "Lives on the soil: Alternative sources of productivity limitation and agricultural dynamics." |

Conference presentations

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| 08/2009 | Lee, CT and BD Inouye. Consumer-resource mutualism promotes coexistence in lottery competition. Ecological Society of America 94 th Annual Meeting, Albuquerque, NM. |
| 04/2009 | Lee, CT, MW Graves, TN Ladefoged, S Tuljapurkar, and P Vitousek. Dynamically linking agroecosystems and human population dynamics in preindustrial agrarian societies. Coupling Humans and Complex Ecological Landscapes: 2009 Symposium of the US Regional Association of the International Association of Landscape Ecologists, Snowbird, UT. |

- 08/2007 Lee, CT, S Tuljapurkar, and CO Puleston. Food, labor, and environment: A dynamic model for the demography of expanding subsistence populations. Ecological Society of America 92nd Annual Meeting, San Jose, CA.
- 08/2005 Lee, CT and S Tuljapurkar. Climate fluctuations and risk in preindustrial dryland agriculture: Consequences of temporal and spatial heterogeneity. Ecological Society of America 90th Annual Meeting, Montreal, Canada.
- 08/2002 Lee, CT and A Hastings. Dispersal, selection, and habitat heterogeneity: The dynamics of hybridization across patchy landscapes. Ecological Society of America 87th Annual Meeting, Tucson, AZ.
- 08/2001 Almasi, KN and CT Lee. Modeling the spread of an invasive plant in native forests of Hawai'i. 2001 Annual Meeting of the Society for Conservation Biology, Hilo, HI.
- 08/2000 Lee, CT. Ecological determinants of small-scale genetic structure in plants. Ecological Society of America 85th Annual Meeting, Snowbird, UT.

Teaching experience

Graduate level:

- 2011 PCB 5425, Population Ecology, Florida State University Department of Biological Science (Enrollment 12)
- 2010 BSC 5932-48, Ecology Readings, FSU Department of Biological Science (Enrollment 6)

Undergraduate level:

- 2011-2012 BSC 3052, Conservation Biology, FSU Biological Science (Enrollment 56)
- 2010 BSC 4900-71, Theory in Ecology Directed Independent Study, FSU Biological Science (Enrollment 1)

Mentorship

Graduate advisor:

Kortessis, N. M.S. Student 2010 - 2012

Graduate committee member:

Pastore, A. (Ph.D), 2011-
Sackman, A. (Ph.D), 2011-
Wagner, C. (M.S.), 2011-

Undergraduate advisor:

Smith, K. Independent Student Project (New College of Florida), January 2010

Undergraduate committee member:

Lloyd, G. Honors thesis committee member (FSU Political Science Dept.), 2010

Professional service

- 2010 Panelist, NSF Review Panel: Coupled Natural and Human Systems (also invited to a Population and Community Ecology Doctoral Dissertation Improvement Grant panel, but was unable to attend because the two panels met within two weeks of one another)
- 2009 Judge, Buell Award for Best Student Oral Presentation, Ecological Society of America 94th Annual Meeting, Albuquerque, NM
- 2008 Co-organizer, Organized Oral Symposium “Combining Archaeological and Ecological Perspectives to Understand the Reciprocal Dynamics of People and the Ecosystems that Sustain Them.” Ecological Society of America 93rd Annual Meeting, Milwaukee, WI
- 2008 Judge, Volterra Award for Best Student Oral Presentation, ESA Theoretical Ecology Section, Ecological Society of America 93rd Annual Meeting, Milwaukee, WI
- 2000 Graduate student representative, Chair search committee, Department of Environmental Science and Policy, UC Davis
- 1997 Curriculum committee, UC Davis Ecology Graduate Student Association

Journal reviewer for: American Naturalist (x6); BioMedCentral Ecology; Ecography; Ecological Applications; Ecology (x4); Ecology Letters (x2); Human Ecology (x2); Journal of Arid Environments; Journal of Theoretical Biology (x2); Journal of Vegetation Science (x2); Methods in Ecology and Evolution; Nature Communications; Oikos; Proceedings of the Royal Society B: Biological Sciences; SIAM Journal on Applied Mathematics; Theoretical Ecology (x2); Theoretical Population Biology (x7)

Technical manuscript reviewer, US Environmental Protection Agency

Proposal reviewer, National Science Foundation (x8: BCS Archaeology (DDIG) x 3); DEB Population and Evolutionary Processes (CAREER); DEB Evolutionary Ecology; DEB Evolutionary Genetics; DEB Population Dynamics)
