

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."
 Dissertation advisor: Alan Hastings
- A.B. Ecology and Evolutionary Biology, Princeton University, 1996. With Certificate of Proficiency in French language and culture. Senior thesis advisor: Stephen Pacala

Positions held

- Oct 2007 - present Fellow, Society in Science: the Branco Weiss Fellowship. Florida State University, Tallahassee, FL.
- Feb – Oct 2007 (60%) Research associate, Stanford University. Supervisor: Shripad Tuljapurkar
- Feb – Oct 2007 (40%) Postdoctoral research associate, Florida State University. Supervisor: Brian Inouye
- May 2006 – Feb 2007 Postdoctoral research associate, University of Arizona, Tucson, AZ. Supervisor: Peter Chesson
- 2002 - 2006 Postdoctoral researcher, Stanford University. Supervisor: S. Tuljapurkar

Grants and fellowships

- 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**, and BD Inouye. Mutualism between consumers and their shared resource can promote competitive coexistence. Conditionally accepted to The American Naturalist (pending minor revisions).

- Lee, CT**, CO Puleston, and S Tuljapurkar. Population and prehistory III: Food-dependent demography in variable environments. *Theoretical Population Biology*.
- Lee, CT**, and S Tuljapurkar. Quantitative, dynamic models to integrate environment, population, and society. In Kirch, PV, ed. *Soils, Dryland Agriculture, and Social Complexity in Ancient Hawai'i: A Model System for Human Ecodynamics*. SAR Press Advanced Seminar Series, Santa Fe, New Mexico.
- 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. pp. 672-278 in SE Jorgensen and BD Fath (Editor-in-Chief), *General Ecology*. Vol. 1 of *Encyclopedia of Ecology*, 5 vols. Oxford: Elsevier.
- 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.
- 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

- 04/2009 Department of Mathematics, Florida State University. "Mechanisms of coexistence in competing mutualists."
- 12/2008 Society in Science Annual Meeting, Collegium Helveticum, Swiss Federal Institute of Technology Zurich. "Quantitative dynamic models to integrate population, environment, and society."
- 09/2008 Coastal and Marine Lab, Florida State University. "Preindustrial agriculture, population, and society."
- 08/2008 Organized Oral Symposium, Ecological Society of America 93rd Annual Meeting, Milwaukee, WI. "Food-dependent demography: integrating environment and population."
- 06/2008 Center for Ocean-Atmosphere Prediction Studies, Florida State University. "Preindustrial agriculture, population, and society."
- 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."
- 11/2006 Center for Demography and Population Health, Florida State University. "Food-dependent demography for subsistence populations: Caloric demand, labor, and environmental productivity."
- 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 papers

- 04/2004 Tuljapurkar, S, and CT Lee. Symposium paper "Demography, soils, and agriculture: models of prehistory." Society for American Archaeology 69th Annual Meeting, Montreal, Canada.
- 12/2003 Lee, CT and S Tuljapurkar. "Lives on the Soil." Conference on Long-Term Demographic History in the Pacific Islands, Mo'orea, Tahiti.

Conference presentations

- 08/2009 Lee, CT and BD Inouye. Consumer-resource mutualism promotes coexistence in lottery competition. Ecological Society of America 94th 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

- 2008 Invited lecturer, Stanford Workshop in Formal Demography, 1-4 May 2008, Stanford University
- 2007 Guest lecturer, Biological Science 5425, "Population Ecology," Florida State University
- 2004 Guest lecturer, Biological Sciences 102/Human Biology 137, "Demography of humans and other species," Stanford University
- 2003 Guest lecturer, Biological Sciences 221, "Methods of theoretical population biology," Stanford University
- 2002 Guest lecturer, Ecology/Population Biology 231, "Mathematical methods for population biology," UC Davis
- 1999 Teaching assistant, Agronomy 206, "Multivariate systems and modelling," UC Davis
- 1996 - 1997 Teaching assistant (x2) and graduate student course coordinator (1997), Biological Sciences 1B, "Introduction to Zoology," UC Davis

Professional service

- 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 reviews: American Naturalist (x4); Ecography; Ecological Applications; Ecology; Human Ecology (x2); Journal of Arid Environments; Journal of Theoretical Biology; Journal of Vegetation Science (x2); Theoretical Population Biology (x6)

Technical manuscript reviewer, US Environmental Protection Agency

Proposal reviewer, National Science Foundation (x2)

References

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