Curriculum Vitae

Steven L. Peck

Associate Professor
Department of Biology
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Brigham Young University
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Education

1997, PhD in Biomathematics
North Carolina State University
Dissertation: *Spatial Patterns and Processes in the Evolution of Insecticide Resistance*
Advisor: Stephen Ellner (Biomathematics), Fred Gould (Entomology)

1987, M.S. Environmental Biostatistics
University of North Carolina at Chapel Hill
Masters: *Inter-species Competition in Island Biogeography*

1986, B.S. Statistics-Computer Science
Minor: Zoology
Brigham Young University

Professional Experience

2018 - Current Part-time Research Fellow at the Maxwell Institute of Religious Scholarship
2006 - Current Associate Professor; Department of Biology, Brigham Young University, Provo, UT.
2008 One year sabbatical leave with United Nations International Atomic Energy Agency (UN-IAEA) in Vienna, Austria working on computer simulation models of tsetse fly ecology and population genetics.
2000-2006: Assistant Professor; Department of Biology, Brigham Young University, Provo, UT.
1997-1999: Research Scientist; United States Department of Agriculture (USDA) / Agriculture Research Service (ARS); Pacific Basin Agricultural Research Center, Hilo, Hawaii.
1993-1997: Research Faculty; Department of Plant Pathology, North Carolina State University, Insect Indicator Lead for the Agroecosystem Resource Group of the Environmental Monitoring and Assessment Program (EMAP), Raleigh North Carolina.
1990-1993: Statistician; Faculty, North Carolina State University, Department of Statistics Agroecosystem Resource Group of the Environmental Monitoring and Assessment Program (EMAP).
1988-1990, (1995-1997: consulting): Statistician; Duke University Medical Center, Department of Cardiology, Biostatistics Unit

Areas of Interest

Philosophy of Science: Agent Based Models; Simulation Modeling; Digital Humanities; Emergence; Philosophy of Biology; Environmental Bioethics; Ecology of Dipteran Movement; Process Philosophy; The Evolution of Novelty; Creative Writing.

Peer Reviewed Code

Peck, S. L. 2020. Evolution of Ecological Communities: Testing Constraint Closure (version 1.0.0). *CoMSES Open ABM.* Source code repository and peer review of agent-based model code. https://www.comses.net/codebases/c9d55182-4444-4cc1-9a6f-dcf9c4ca942a/releases/1.0.0/

Peer Reviewed Papers

Peck, S. L. (In preparation). Are ecological niches real, just a good idea, or a case theoretical indigestion? The case of audioecology. *Philosophy & Biology.*

Peck, S. L. (In preparation). Can evolutionary constraints lead to stability ecological communities? *Ecology.*

Peck, S. L. (In preparation). Emergent structures in ecological and evolutionary interactions. *Evolution* or *American Naturalist*.

Peck, S. L. (In preparation). A Deleuzean analysis of the anthropocene in the Book of Mormon. *Theology and Literature.* (Based on presentation at the 2020 Association for the Study of the Book of Mormon Converence 2020)

Peck, S. L. (In press) Why the Latter-day Saint community should trust science (in the same way scientists do). *BYU Studies*

Peck, S.L. (in press). Each atom an agent? in *Open Topics in LDS Thought*, Eliason, E.. and Givens, T. Oxford University Press.

Peck. S. L. and A. Heiss (In 2nd Round Review) Can constraint closure provide a generalized understanding of community dynamics in ecosystems? *Oikos.* (Preprint available at bioRxiv: The Preprint Server for Biology: https://doi.org/10.1101/2020.01.28.92400)

Iris Lorscheid, <. . . other authors . . . > , Steven L. Peck, < . . . > and Volker Grimm. (Addressing Reviewer comments). Coping with change: agent-based theory for the Anthropocene. Invited paper to *Proceedings of the National Academy of Science.*

Peck, S. L. (In review) Resonances of Latter-day Saint theology of a material, embodied deity with evolutionary conceptions of agency and matter. *Journal for the Study of Religion*

Peck, S. 2019. Trajectories in the Evolution of Mormon Studies on Faith and Science. *Mormon Studies Review, 6*, 67-90. Retrieved from https://www.jstor.org/stable/10.18809/mormstudrevi.6.2019.0067

Peck, S. L. 2019. The Rumors of Bergson's Demise May Have Been Exaggerated: Autonomous Agents and Emergence in Evolution. *Foundations of Science* 24: 541. https://doi.org/10.1007/s10699-019-09598-4

Lindsay, John, Adhieu Arok, Seth M. Bybee, Walter Cho, April Maskiewicz Cordero, Daniel G. Ferguson, Leontine L. Galante, Richard Gill, Mark Mann, Steven L. Peck, Cassidy L. Shively, Michael R.

Stark, Joshua A. Stowers, Michael Tenneson, Ethan R. Tolman, Thomas Wayment, and Jamie L. Jensen. 2019. "Using a Reconciliation Module Leads to Large Gains in Evolution Acceptance." *CBE—Life Sciences Education* 18 (4):ar58. doi: 10.1187/cbe.19-04-0080.

Peck, S. L. and J. Leishman. 2019. DeCreation: Art, Poetry, Science. *Whitefish Review*. 12(2) p. 39-45.

Bradshaw, W.S., Phillips, A.J., Bybee, S.M., Gill, R.A., Peck, S.L. and Jensen, J.L., 2018. A longitudinal study of attitudes toward evolution among undergraduates who are members of the Church of Jesus Christ of Latter-day Saints. *PloS one*, *13*(11), p.e0205798. Bradshaw, W.S., Phillips, A.J., Bybee, S.M., Gill, R.A., Peck, S.L. and Jensen, J.L., 2018. A longitudinal study of attitudes toward evolution among undergraduates who are members of the Church of Jesus Christ of Latter-day Saints. *PloS one*, *13*(11), p.e0205798.

Peck, S. L. 2017. *Science the Key to Theology*. BCC Press, Salt Lake City, UT.

Abbott MN, Peck S.L. 2016. Emerging ethical issues related to the use of brain-computer interfaces for patients with total locked-in syndrome. *Neuroethics* 8. doi:10.1007/s12152-016-9296-1

Schuster, Haley and Steven L. Peck. 2016. Mars ain't the kind of place to raise your kid: Ethical implications of pregnancy on missions to colonize other planets. *Life Sciences, Society and Policy*. 12:10. DOI: 10.1186/s40504-016-0043-5

Peck, S. L. (2015) *Evolving Faith.* Neal A. Maxwell institute. Provo, Utah

Cottrell, S. J. L. Jenson, and S. L. Peck. 2014. Resuscitation and resurrection: The ethics of cloning cheetahs, mammoths, and Neanderthals. *Life Sciences, Society and Policy* 10:3 doi:10.1186/2195-7819-10-3

Ahmadou H. Dicko, Renaud Lancelot, Momar Talla Seck, Laure Guerrini, Baba Sall, Mbargou Low, Marc J.B. Vreysen, Thierry Lefrançois, Fonta Williams, Steven L. Peck, and Jérémy Bouyer. 2014. Using species distribution models to optimize vector control: the tsetse eradication campaign in Senegal. *Proceedings of the National Academy of Science*. 11 (28) : 10149-10154

Peck, S. L. 2014. Perspectives on why digital ecologies matter: Combining population genetics and ecologically informed agent-based models with GIS for managing dipteran livestock pests. *Acta Tropica*. 138S (2014) S22–S25

Vargas, R.I., J.D. Stark, J. Banks, L. Leblanc, N. Manoukis, S. L. Peck. 2013. Spatial dynamics of two oriental fruit fly (Diptera: Tephritidae) parasitoids, *Fopius arisanus* (Sonan) and *diachasmimorpha longicaudata* (Ashmead) (Hymenoptera: Braconidae), in a guava orchard in Hawaii. *Economic Entomology* 42(5) 888-901.

Peck, S. L. 2013. Life as emergent agential systems: Tendencies without teleology in an open universe. *Zygon: Journal of Religion and Science* 48 (4): 984-1000.

Peck, S. L. 2012c. Agent-based models as fictive instantiations of ecological processes." *Philosophy & Theory in Biology*. Vol. 4.e303 (2012): 12.

Froerer KM, Peck SL, McQuate GT. 2011. Evaluation of readmission ink as a marker for dispersal studies with the oriental fruit fly, Bactrocera dorsalis. *Journal of Insect Science* 11:125, available online: insectscience.org/11.125

K.M. Froerer, S.L. Peck, G.T. McQuate, R.I. Vargas, E.B. Jang, and D.O. McInnis. 2010. Long distance movement of *Bactrocera dorsalis* (Diptera: Tephritidae) in Puna, Hawaii: How far can they go? *American Entomologist* 56(2): 88-94.

Rasmussen, J., M. Belk, and S. L. Peck. 2009. Endangered species augmentation: a case study of alternative rearing methods. *Animal Conservation* 8:225–232

Bell A.V., R. B. Rader, S. L. Peck, and A. Sih. 2009. The positive effects of negative interactions: Can avoidance of competitors or predators increase resource sampling by prey? *Theoretical Population Biology.* 76:52-58.

Caprio, M. A., N. Storer, M. S. Sisterson, S. L. Peck and A. de H. N. Maia. 2008. Assessing the risk of the evolution of resistance to pesticides using spatially complex simulation models. *In* Whalon, Sanchez, and Hollingworth, *Global Pesticide Resistance in Arthropods*, CABI Publishing, Cambridge, MA.

Belk, M.C., Benson, L.J., Rasmussen, J., and Peck, S.L. 2008. Hatchery-induced morphological variation in an endangered fish: a challenge for hatchery-based recovery efforts. *Can. J. Fish. Aquat. Sci.* 65.3 (2): 401-408.

McQuate, G. T., A. H. Bokonon-Ganta, and S. L. Peck. 2007. Background population biology and prospects for suppression of the solanaceous fruit fly, *Bactrocera latifrons* (Diptera: Tephritidae). *Proceedings of the Hawaiian Entomological Society.* 39:1-5.

Peck, S. L., G. T. McQuate, R. I. Vargas, D. C. Seager, H. C. Revis, E. B. Jang, D. O. McInnis. 2005. The movement of sterile male *Bactrocera cucurbitae* (Diptera: Tephritidae) in a Hawaiian agroecosystem. *Journal of Economic Entomology*. 98(5): 1539-1550.

Mc Quate G. T., S. L. Peck, P. G. Barr, and C. D. Sylva. 2005. Comparative evaluation of Spinosad and Phloxine B as toxicant in protein baits for suppression of three fruit fly (Diptera: Tephritidae) species. *Journal of Economic Entomology* 98 (4): 1170-1178.

Peck, S. L. 2004. Simulation as experiment: a philosophical reassessment for biological modeling. *Trends in Ecology and Evolution* 19 (10): 530534

Peck, S. L. and G. T. McQuate. 2004. Ecological Aspects of *Bactrocera latifrons* (Diptera: Tephritidae) on Maui, Hawaii: movement and host preference. *Environmental Entomology* 33(6): 17221731.

(many authors), Peck, S. L. 2004. Minutes FIFRA Scientific Advisory Panel Meeting: A Set of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: Product Characterization, Human Health Risk, Ecological Risk, And Insect Resistance Management For *Bacillus Thuringiensis* (Bt) Cotton Products June 810, 2004, Arlington, Virginia. U.S. *EPA SAP Report No. 2004.*

Storer N.P., S. L. Peck, F. Gould, J. W. Van Duyn and G. G. Kennedy. 2003. Spatial processes in the

evolution of resistance in *Helicoverpa zea* (Lepidoptera: Noctuidae) to Bt transgenic corn and cotton in a mixed agroecosystem: a biology-rich stochastic simulation model. *Economic Entomology* 96(1): 156-172.

Storer N.P., S. L. Peck, F. Gould, J. W. Van Duyn and G. G. Kennedy. 2003 Sensitivity analysis of a spatially-explicit stochastic simulation model of the evolution of resistance in *Helicoverpa zea* (Lepidoptera: Noctuidae) to Bt transgenic corn and cotton. *Economic Entomology.* 96(1): 173-187.

Peck, S.L. 2003. Randomness, contingency, and faith: Is there a science of subjectivity? *Zygon: Journal of Religion and Science.* 38(1):5-24. (Also included in the *Critical Concepts in Religious Studies Volume: Religion and Science* Edited by Sara Fletcher Harding, Nancy Morvillo)

Peck, S. L. 2001. Antimicrobial and Insecticide Resistance Modeling: Is it time to start talking? *Trends in Microbiology*. 9(6):286-292.

Vargas, R.I., S.L. Peck, G.T. McQuate, C. G. Jackson, J.D. Stark and J.D. Armstrong. 2001. Potential for areawide integrated management of Mediterranean fruit fly with a braconid parasitoid and a novel bait spray. *Journal of Economic Entomology* 94 (4): 817825.

McQuate, G. T. and S. L. Peck. 2001. Suppression of Mediterranean fruit fly populations over mountainous areas through aerial phloxine B-Protein Bait Sprays: regional Medfly program in Guatemala. *In* KengHong Tan (ed.) *AreaWide Control of Fruit Flies and Other Insect Pests*. Penerbit Universiti Sains Malaysia. Penang, Malaysia.

McQuate, G. T and S. L. Peck. 2001. Enhancement of attraction of male *Bactrocera latifrons* to alpha-Ionol (Diptera: Tephritidae) by addition of a synergist, cade oil. *Journal of Economic Entomology* 94(1):39-46.

Peck, S. L. 2001. Ecological Modeling: A guide for the nonmodeler. *Conservation Biology in Practice* 2(3) : 3639.

Peck, S. L. 2000 A tutorial for understanding ecological modeling papers for the nonmodeler. *American Entomologist* 46(1):40-49.

Peck, S. L. and G. T. McQuate. 2000. Field Tests of malathion replacements spinosad and photoactive dyes for suppression of wild Mediterranean fruit fly (*Ceratitis capitata*) populations. *Journal of Economic Entomology* 93(2): 280-289.

Peck, S. L., S. Ellner, and F. Gould. 2000. Varying Migration and Deme Size, and the Feasibility of the Shifting Balance. *Evolution* 54 (1):324-327.

AlcantaraLicudine, J.P.; N. L. Bui, Q. X. Li, G. T. McQuate, S. L. Peck. 2000. Method for determination of xanthene dyes in guava fruits and its application in a field dissipation study. Journal of AOAC (Association of Official Analytical Chemists) International. 83(3): 563568.

Hellkamp, A.S., J. M. Bay, C. L. Campbell, K. N. Easterling, D. A. Fiscus, G. R. Hess, B. F. McQuaid, M. J. Munster, G. L. Olson, S. L. Peck, S. R. Shafer, K. Sidik, and M. B. Tooley. 2000. Assessment of the condition of agricultural lands in six midAtlantic states. *Journal of Environmental Quality* 29:795-804.

Hess, G. R., C. L. Campbell, D. A. Fiscus, A. S. Hellkamp, B. F. McQuaid, M. J. Munster, S. L. Peck, and S. R. Shafer. 2000. A conceptual model and indicators for assessing the ecological condition of agricultural lands. *Journal of Environmental Quality* 29:728-737.

Peck, S. L., F. Gould, and S. Ellner. 1999. The spread of resistance in spatially extended systems of transgenic cotton: Implications for the management of *Heliothis virescens* (Lepidoptera: Noctuidae). *Economic Entomology* 92:1-16.

Peck, S. L., S. Ellner, and F. Gould. 1998. A spatially explicit, stochastic model demonstrates the feasibility of Wright's shifting balance theory. *Evolution* 52:1834-1839.

Peck, S. L., C. L. Campbell, and B. McQuaid. 1998. Using ant species (Hymenoptera: Formicidae) as a biological indicator of agroecosystem condition. *Environmental Entomology* 27(5): 1102-1110.

McQuate, G. T., R. T. Cunningham, S. L Peck, and P. H. Moore. 1999. Suppressing oriental fruit fly populations with phloxine B-protein bait spays. *Pesticide Science* 55 (5): 574-576.

Anderson, N. D., H. S. Stubbs, S. L. Peck, and J. W. Slusher. 1999. Ants: Using Biological Indicators to Investigate Environmental Conditions (Monitoring the Environment Series). Carolina Biological Supply Company, Burlington, NC.

Christenson, R., M., S. Duh, K. Newby, E. Ohman, R. Califf, Granger, S. L. Peck, K. Pieper, P. Armstorng, H. Katus, and E. Topel for the GUSTO-IIa Investigators. 1998. Cardiac troponin T and cardiac troponin I: relative value in short-term risk stratification of patients with acute coronary syndromes. *Clinical Chemistry* 44(3):494-501.

Peck, S. L. and S. Ellner. 1997. The effect of economic thresholds and life history parameters on the evolution of pesticide resistance in a regional setting. *American Naturalist*, 149:44-65.

Peck, S. L. 1997. *Spatial Aspects of the Evolution of Pesticide Resistance: Models and Recommendations*. A dissertation submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the Degree of Doctor of Philosophy: Departments of Biomathematics and Entomology. North Carolina State University. Raleigh, NC.

R. Christenson, Vollmer, R. Califf. S. L. Peck, M. O. Hanesian, Duh, E. Topel, K. Newby, and M. Ohman for the TAMI-7 Study Group. 1997. Assessment of coronary reperfusion after thrombolysis with a model combining myoglobin, creatine kinase-MB, and clinical variables. *Circulation* 96:1776-1782.

Neher, D. A., S. L. Peck, J. O. Rawlings and C. L. Campbell. 1995. Measures of nematode community structure for an agroecosystem monitoring program and sources of variability among and within agricultural fields. *Plant and Soil*. 107:167181.

Hawks, S. R., S. L. Peck and Lynn Smith. 1993. Impact to first aid education: occurrence of emergency helping among college students. *Journal of Health Education*. 24(6):379.

Hawks, S. R. and S. L. Peck. 1992. Non-traditional teaching methods for emergency care education: student perceptions. *Journal of Health Education*. 23(1):39-44.

Hawks, S. R., S. L. Peck, and K. Vail-Smith. 1992. An educational test of health behavior models in relation to emergency helping. *Health Psychology*. 11(6):396-402.

Hellkamp, A. S., S.R. Shafer, C. L. Campbell, J.M. Bay, D.A. Fiscus, G.R. Hess, B.F. Mcquaid, M. J. Munster, G.L. Olson, S.L. Peck, K.N. Easterling, K. Sidik, and M.B. Tooley. 1998. Assessment of the condition of agricultural lands in five Mid-Atlantic states. *Environmental Monitoring and Assessment*. 51:317-324.

Meyer, J. R. , C. L. Campbell, T. J. Moser, G. R. Hess, J. O. Rawlings, S. L. Peck, and W. W. Heck. 1992. Indicators of the ecological status of agroecosystems. *In Ecological Indicators volume 1*. ed. D. H. Mckenzie, D. D. Hyatt and V. J. McDonald. Elsevier Applied Science London and New York.

Sevilla, D.C., N.B. Wagner, R. Pegnes, S.L. Peck, E.M. Mikat, R.E. Ideker, G. Hutchings, K.A. Reimer, D. B. Hackel, and R. H. Selvester. 1992. Correlation of the complete version of the Selvester QRS scoring system with quantitative anatomic findings for multiple left ventricular myocardial infarcts. *American Journal of Cardiology* 69(5):465-469.

Clemmensen, P., E.M Ohman, D. C. Sevilla, S. L. Peck, N. B. Wagner, P. S. Quigley, P. Grande, K. L. Lee and G. S. Wagner. 1990. Changes in standard electrocardiographic ST-segment elevation predictive of successful reperfusion in acute myocardial Infarction. *The American Journal of Cardiology*. 66:1407-1411.

Harrell, F. E., S. E. Marcus, P. M. Layde, S.K. Broste, E.F. Cook, D. P. Wagner, L.H. Muhlbaier, and S.L. Peck. 1990. Statistical methods in SUPPORT. *Journal of Clinical Epidemiology* 43 Supplement: 89S-98S.

Hawks, S. R., S. L. Peck, B. Hafen & K. Karren. 1990. Rating stress in EMS: A Responder Survey. *Journal of Emergency Medical Services*. 15 (9):55-57.

Sevilla, C. D., N. Wagner, R. White, S. L. Peck, R. Ideker, D. Hackel, K. Reimer, R. Selvester, G. Wagner. 1990. Anatomic validation of electrocardiographic estimation of the size of acute or healed myocardial Infarcts. *The American Journal of Cardiology.* 65:1301-1307.

Other Publications

Peck, S. L. What Intelligent Life in the Universe Will Look Like (Should We Find It); *Analog: Science Fiction and Fact*, March 2015

Peck, S. L. My view: Who will do the science if Western land grab is successful? *Deseret News*, March 17, 2013

Peck, S. L. 2011. Why Nature Matters. *Dialogue*. 44(2): 1-5.

Mike Caprio, John Glaser, Rick Hellmich, David Onstad, and Steven L. Peck. 2010 *Framework for Evaluation of IRM Models*: Report to EPA. Submitted Reference number pending.

Peck, S. L. 2010. Crawling out of the primordial soup: a step toward the emergence of an LDS theology

compatible with organic evolution. *Dialogue* 43:1-36

Peck S. L. My Madness. *Dialogue*. 2008. 41:57-70.

Peck, S. L. Science Suffers when getting a grant becomes the goal. (Commentary: 2008). *Chronicle of Higher Education*. Oct. 10th, 2008.

Peck, S. L. America adds a shameful chapter to the history of torture. (op ed: 2008) *Salt Lake Tribune* Op-Ed, 03/07/2008.

Peck, S. L. Intelligent Design fails as a pretense to science that tries to set religion and evolution at odds. (op ed: 2008) *Salt Lake Tribune* Op-Ed, 05/09/2008.

Peck, S. L. 2006. An ecologist's view of LDS culture and the current environmental crisis. In, Handley, G., T. Ball, and S. L. Peck eds. *Sacred Stewardship: LDS Perspectives on the Environment.* Religious Studies Center Publication. Provo, UT.

Handley, G., T. Ball, and S. L. Peck. 2006. *Sacred Stewardship: LDS Perspectives on the Environment.* Religious Studies Center Publication. Provo, UT.

Peck, S. L. 2005. The current philosophy of consciousness landscape: where does LDS thought fit? *Dialogue*. 38: 36-64.

Peck, S. L. 1995. Water, Mud and Insects. *The Friend* (Children's magazine). May 1995.

Heck, W. W., C. L. Campbell, A. L. Finkner, C. M. Hayes, G. R. Hess, J. R. Meyer, M. J. Munster, D. Neher, S. L. Peck, J. O. Rawlings, C. N. Smith, M. B. Tooley. 1993. *Agroecosystem 1992 Pilot Project Plan*. EPA/620/R-93/010.

Peck, S. L., J. O. Rawlings and A. L. Finkner. 1992. A comparison of sampling design options for EMAP-Agroecosystems Group. *American Statistical Association 1991 Proceedings of the Section on Survey Research Methods.* pp. 191-195.

Heck. W.W., C. L. Campbell, R. P. Breckenridge, G. E. Byers, A. L. Finkner, G. R. Hess, J. R. Meyer, T. J. Moser, S. L. Peck, J. O. Rawlings, and C. N. Smith. 1991. *Environmental Monitoring and Assessment Program (EMAP)- Agroecosystem Monitoring and Research Strategy*. EPA/600/4-91/013.

Peck, S. L. 1988. *A Discrete Event Simulation Of Macarthur-Wilson Equilibrium Theory In Island Biogeography*. Masters Paper For Fulfilling The Requirements For A Master Of Science Degree In Biostatistics At The University Of North Carolina At Chapel Hill.

Manuscripts in Preparation

Anthony, Christopher & Steven L. Peck. How transparent should physicians be about their own attitudes about non-medical perspectives. Mentored ethics research paper.

Peck, Steven L. & Jérémy Bouyer. Ethical issues in the control and suppression of tsetse fly populations:

values and qualitative costs of environmental concerns. *International Bioethics*. Estimated submission: April 2018

Peck, Steven L. & Jérémy Bouyer. Metapopulation dynamics of tsetse flies in the Neyes region of Senegal: Effect of movement on tsetse eradication using SIT. Target journal *Science*. Est. Feb 2018

Book Reviews

Peck, S. L. 2008. Review. Stauffer, Howard B. 2008. *Contemporary Bayesian and frequentist statistical research methods for natural resource scientists*. Wiley and Sons, Hoboken, New Jersey. xv + 400 p. $100.00, ISBN: 978-0-470-16504-1. *Ecology*. 89:3258-3259.

Peck, S. L. 1999. Review of Gurney, W. S. C., and R. M. Nesbet. 1998. Ecological dynamics. Oxford University Press, NY. Reviewed in *Ecology* 80:728-729.

Peck, S. L. 1999. Review of Turchin, P. 1998. Quantitative analysis of movement: measuring and modeling population redistribution in animals and plants. Sinauer Associates, Sunderland, Massachusetts. Reviewed in *Ecology* 80:1451-1452.

Presentations and Posters

Peck, S. L. 2020. "The Sword of Laban, Deleuze, and Climate Change: Slouching Toward Apocalypse in the Book of Mormon." Book of Mormon Association Conference. Zoom this year.

Peck, S. L. Agency Conference, Neal A. Maxwell Institute for Religious Studies. "Bodily Life: The Biology of Agency" April 2019.

Peck, S. L. English Reading Series. Selections from Gilda Trillim. Oct. 5 2018

Abbott MN, Peck SL. Emerging Ethical Issues Related to the Use of Brain-Computer Interfaces for Patients with Total Locked-In Syndrome. DMU Research Symposium. Des Moines, IA. 2016 .

Peck SL. Complex Experiments: Using Agent-based Models To Provide Causal Insight Into Ecological Community Structure. The Twenty-Fifth Biennial Meeting of the Philosophy of Science Association. Atlanta, Georgia. 2016 .

Invited Talk: Peck SL. Evolving Faith. Summerhays Lecture. Provo, UT. 2016.

Peck, S. L.and Jérémy Bouyer. Using agent-based models to explore the effect of ecological complexity on tsetse suppression programs. Conference on Mathematical Models in Ecology and Evolution. Collège de France, Paris, July 8-10, 2015

Schuster, Haley. Ethical Implications of Pregnancy on Mars Mission. The 18th Annual Mars Society, Washington, DC, August 14-16, 2015

Invited Talk: Peck, S. L. Using agent-based models to explore the effect of ecological complexity on tsetse suppression programs. Pacific Branch of the Entomological Society of America, Tucson, AZ. April

7-9, 2014.

Invited Talk: Peck, S. L. Evolution and Ecology in Science Fiction and Fantasy. Life, the Universe, & Everything Symposium: 30th Annual Meeting 14-16 February 2012. Provo, UT

Invited Talk*:* Peck, S. L. American Perspectives on Environmental Ethics. Advanced Ethics King's School, Worcester, April, 2013.

Invited Talk: Peck, S. L. The effect of ecological complexity on tsetse suppression programs. Applying GIS and Population Genetics for Managing Livestock Insect Pest. London, UK 15-19 April 2013

Invited Talk: Peck, S. L. Conjuring the natural world out of digital fictions: the role of narrative in complex ecological computer simulation. Humanities Center Winter Symposium, sponsored by the Humanities Center and Office of Digital Humanities. March 2013 Provo, UT

Invited Talk: Peck, S. L. Evolution in Science Fiction and Fantasy. What is the Life, the Universe, & Everything Symposium: 30th Annual Meeting 14-16 February 2012.

Invited talk: Peck, S. L. Use of the metapopulation theory and individual-based models to improve pest control. Quels outils pour un changement d'échelle dans la gestion des insectes d'intérêt économique? (New tools for a change of scale in pest management). CIRAD, October, 2011, Montpellier, France.
Conference Keynote Address

Plutynski, A., Peck, S. L. and F. Adler. 2011 Microbial Evolution and Public Health: A Multilevel Perspective. The International Society for History, Philosophy, and Social Studies of Biology Annual Meeting. July, 2011, Salt Lake City, UT.

Peck, S. L. 2011. Mormonism's Current Experience with Creationism: Responses and challenges. The International Society for History, Philosophy, and Social Studies of Biology Annual Meeting. July, 2011, Salt Lake City, UT.

Peck, S. L. 2011. Life as Emergent Agential Systems: Tendencies Without Teleology. What is Life: Theology, Science & Philosophy. June, 2011. Krakow, Poland.

Peck, S. L. 2011. 'After the manner of their language:' The epistemological implications of complexity theory on the hermeneutics of prophetic discourse. The Society for Mormon Philosophy and Theology. April, 2011. Provo, UT

Peck, S. L. 2011. Evolution and Ecology in Science Fiction. Life, the Universe and Everything: The Marion H. "Doc" Smith Symposium on Science Fiction and Fantasy. February, 2011. Provo, UT

Peck, S. L. 2010. 'New Wine in Old Bottles? Novel Philosophical Problems in Representing Ecological Systems with Agent-Based Models. MODELS AND SIMULATIONS 4. The Institute for the History and Philosophy of Science and Technology at the University of Toronto, May 7-9.

Peck, S. L. 2010. "The Implications of Evolution and Consciousness for Key LDS Doctrines. 2010 Society for Mormon Philosophy and Theology Annual Meeting: The Measure of Their Creation—Theological Anthropology. Utah Valley University. 25-27 March.

Invited talk: Peck, S. L. 2010. Metapopuations theory in tsetse control. Applying GIS and Population Genetics for Managing Livestock Insect Pests" from 22-26 Feb 2010, in Bali, Indonesia.

Invited talk: Peck, S. L. 2009. Networks of habitat patches in tsetse fly control: implications of metapopulation structure on assessing local extinction probability. Annual Meeting of the Entomological Society of America. Indianapolis, Dec. 15, 2009

Invited talk: Peck, S. L. 2009. Conjuring Ecologies: Hermeneutics, Representation, Construction and Modeling. Department of Integrated Studies, Utah Valley University, July.

Invited talk: Peck, S. L. 2009. The Ethics of Tsetse Fly Eradication, Philosophy Department Ethics Class. University of Utah, Salt Lake City Utah.

Invited talk: Peck, S. L., J. Odenbaugh. Ecological boundaries: Whose? 2008 Edges & Boundaries of Biological Objects Workshop: Ecosystems. Department of Philosophy, University of Utah, Salt Lake City.

Invited talk: Peck, S. L. 2007. *The hermeneutics of ecological simulation*. UFZ Centre for Environmental Research AND Max-Planck-Gesellschaf zur Förderung der Wissenschaften. Leipzig, Germany. Feb. 2007.

Charles A. G., S L. Peck, D. Onstad. 2006. *Simulation in Bt*. Entomological Society of America Annual Meeting. Indianapolis, Indiana 12 Dec. 2006.

Invited talk: Peck, S. L. 2005. *The management of insect resistance to transgenic crops in small hectare metapopulations.* Fifth Asia-Pacific Congress of Entomology. Jeju Korea. October.

Peck, S. L., A. Bell and R. Vargas. 2005. *Wide area control of* Bactrocera cucurbitae*: A mathematical model of wide area suppression*. Hawaiian Entomological Society, 2005 Pacific Entomology Conference. April. 2005.

Peck, S. L. 2004. *An ecologist's view of LDS culture and the current environmental crisis*. Symposium: Our Stewardship: Perspectives on Nature. Brigham Young University, February 27-28.

Invited talk: Peck, S. L. 2004. *Development and management of insect resistance against transgenic plants.* Korea Conference on Innovative Science and Technology-2004-GM Crops and Foods: Potential Safety and Environmental Impact. November 9-12, 2004. Korean Federation of Science and Technology Societies (KOFST). Gyeongju, Korea.

Invited talk: Peck, S. L. Grant T. McQuate, Roger Vargas, Don McInnis, Eric Jang, Hannah Revis. 2004. *Confronting models with data.* Annual Fruit Fly Areawide Pest Management Progress Review and Conference. April 26-28, Honolulu, Hawaii.

Invited Talk: Peck, S. L. 2004. *Modeling Resistance issues in model comparison.* Resistance Management Modeling Workshop. Held May 11-12, 2004 in Cincinnati, Ohio.

Bell, A. R. (undergraduate student) and S. L. Peck. 2004. *Colony behavior in* Tetramorium caespitum*.*

Entomology Society of America Annual Meeting, November 14-17, Salt Lake City, Utah.

Bell, Adrian V., S. L. Peck, and Roger I. Vargas. 2004. *Delay equation modeling of fruit fly area-wide control.* Entomology Society Meetings, Entomology Society of America Annual Meeting, November 14-17, Salt Lake City, Utah.

Peck S. L. 2003. *The spread of antibiotic resistance in a spatially structured hierarchy of metapopulations.* European Society for Evolutionary Biology 9th Congress, Leeds, Aug. 18-24.

Peck, S. L., Craig Seager, Grant T. McQuate, Roger Vargas, Don McInnis, Eric Jang. 2003. *Movement of Melon Fly* Bactrocera cucurbitae*.* Pacific Entomology Conference, Hawaiian Entomological Society, Feb. 1920.

Invited Talk: Peck S.L. 2002. *The role of modeling in managing antibiotic resistant organisms.* Forum on Infectious Diseases: Resistance. Feb. 6-7. National Academy of Sciences:

Peck. S. L. 2001 Invited symposium panel discussant. *Studies in antibiotic resistance and insecticide resistance: commonalties, differences, and new directions.* North Central Weed Science Society. December 13, in Milwaukee, WI.

Invited Talk: Peck, S. L. 2000. *A computer simulation model of the movement and population dynamics of the Malaysian fruit fly (*Bactrocera latifrons*): Implications for management.* Exotic Fruit Fly Research Symposium. September 10-12, Riverside California.

Peck, S. L. and G. T. McQuate. 2000. *The invasion of the solanaceous fruit fly on the island of Maui: An example of an invasion cascade.* Ecology Society of America 85th Annual Meeting, August 6-10 Snowbird, Utah.

Peck, S. L. and G. T. McQuate. 1999. *The comparison of three pesticides used to control Mediterranean fruit fly infestations.* Pacific Entomology Conference. Honolulu, HI. February 22-23, 1999.

Peck, S. L. and G. T. McQuate. 1999. *Control of Mediterranean fruit flies using bait sprays of spinosad and phloxine B: Possible malathion alternatives for fruit fly control programs.* Poster abstract, p. 55 in Proceedings of the 3rd Meeting of the Working Group on Fruit Flies of the Western Hemisphere, 4 9 July, 1999, Guatemala City, Guatemala.

Peck, S. L. 1998. *A spatially explicit stochastic model demonstrates the feasibility of Wright's shifting balance theory.* Pacific Branch Meeting of the Entomological Society of America. June 22-24, 1998.

Peck, S. L. 1998. *Theoretical population biology, evolutionary ecology, chaos and other ignored considerations in fruit fly action programs.* Poster at The Fifth International Symposium on Fruit flies of Economic Importance. Penang, Malaysia, June 1-5, 1998.

Peck, S. L., G. T. McQuate, R. T. Cunningham and N. J. Liquido. 1998. *Field tests of the effectiveness of xanthene dye bait sprays in the control of two species of tephritid fruit flies.* Poster at The Fifth International Symposium on Fruit flies of Economic Importance. Penang, Malaysia, June 1-5, 1998.

McQuate, G. T. and S. L. Peck. 1998. *Suppression of Mediterranean fruit fly populations over*

mountainous areas through aerial phloxine B-protein bait sprays: Regional Medfly program in Guatemala (MOSCAMED-Guatemala, USDA-APHIS-PPQ, USDA ARS. Poster at The Fifth International Symposium on Fruit flies of Economic Importance. Penang, Malaysia, June 1-5, 1998.

McQuate, G. T. and S. L. Peck. 1998. *Mortality of Mediterranean fruit flies following feeding on phloxine B - Protein baits, with and without uranine, and subsequent exposure to a range of different light intensities.* Poster at The Fifth International Symposium on Fruit flies of Economic Importance. Penang, Malaysia, June 1-5, 1998.

Peck, S. L. 1996. *The spread of resistance in spatially extended systems of transgenic crops.* Entomology Society of America Meetings. Louisville, KY, Dec 8-12 1996.

Peck, S. L. 1995. *Using ants as an indicator of agroecosystem condition.* Presented at the EMAP Science Symposium. research Triangle Park, NC, 79 March 1995.

Peck, S. L. 1994. *Spatial aspects of the population biology of insecticide resistant alleles in large inhomogeneous regions: a 2D cellular automata model.* Presented at the Entomological Society of America Annual Meeting, Knoxville, TN, Aug 7-11, 1994.

Neher, D. A. and S. L Peck. 1994. *Measures of nematode community structure for a national monitoring program and sources of variability among and within agricultural fields.* Poster. Symposium on Biodiversity View points and Current Research. University of North Carolina, chapel Hill, 29 January 1994.

Peck, S. L. 1994. *The use of insects in ecological monitoring.* Symposium on the results of recent Research in Ecological Monitoring and Assessment. Research Triangle Park, NC, April 1214 1994.

Hellkamp A., G. Hess, M. Munster, S. L. Peck and C. L. Campbell. 1994. *EMAPAgroecosystems: Designing a report card for U. S.* agroecosystem health. Poster. 1st International Symposium on Ecosystem Health and Medicine. Ottawa, Ontario, 1923 June 1994.

Neher, D. A., J. O. Rawlings and S. L. Peck. 1993. *Measures of nematode community structure for a national monitoring program and sources of variability among and within agricultural fields.* Poster. Conference of the Soil Ecology Society. Lansing, Michigan, 36 May 1993.

Peck, S. L. 1993. *Using insects as indicators of the environmental health of agroecosystems on a regional and national level.* Poster presented at the Ecological Society of America, Madison, Wisconsin. 31 Jul- 4 Aug, 1993.

Bailey, B., S. Ellner, A. R. Gallant, D. Nychka and S. L. Peck. 1993. *Local Lyapunov exponents: predictability depends on where you are.* Presented by B. Bailey at the Joint Statistical Meetings of the American Statistical Association, San Francisco California, August 8-12, 1993.

Peck, S. L. 1993. *The use of insects for monitoring the condition of the nation's agroecosystem in EMAP.* Presented at the Entomological Society of America Annual Meeting, Indianapolis Indiana, Dec 12-16, 1993.

Peck, S. L., J. O. Rawlings and A. L. Finkner. 1991. *Sampling design issues in ecological monitoring for*

EMAP-Agroecosystems. Presented at the Annual Meeting of the Ecological Society of America, San Antonio Texas Aug. 4-8, 1991.

Peck, S. L., J. O. Rawlings and A. L. Finkner. 1991. *Sampling design options for EMAP-Agroecosystems*. Presented at the American Statistical Association meetings. Atlanta, 1822 August 1991.

Consulting/ Panels

1995-1997 Statistical Consultant. Duke University Medical Center Department of Cardiology. Durham, N.C. USA. General statistical consultant including experimental design and data analysis.
1998 Entomology. Programa Mosca del Mediterraneo. USDA-APHIS Guatemala. Consulted on using Phloxine B sprays in U.S. sponsored Mediterranean fruit fly-free zone on Guatemala-Mexico boarder and sterile insect resistance management.
1999 Entomology. United Nations International Atomic Energy Agency. Bangkok Thailand. Advised on the use of Phloxine B in controlling patchy populations of *Bactrocera dorsalis* (Oriental Fruit Fly) in rural Thai fruit orchards.
2001 Entomology. Tam Dao National Park Vietnam. Consulted on the development of an EarthWatch grant to use butterflies as an indicator of environmental health.
2004 U.S. EPA FIFRA Scientific Advisory Panel (FIFRA SAP) product characterization, human health risk, ecological risk, and insect resistance management for *Bacillus thuringiensis* (Bt) cotton products.
2004. Korean Federation of Science and Technology Societies (KOFST). Gyeongju, Korea. Innovative Science and Technology-2004-GM Crops and Foods: Potential Safety and Environmental Impact.
2005 Biotechnology Risk Assessment Research Grants Program panel USDA, CSREES Washington, D.C. on June 21-23, 2005
2006 EPA Scientific Advisory Panel Report SAP Minutes No. 2006-04 Evaluation of the Resistance Risks from Using 100% Bollgard and Bollgard II Cotton as Part of a Pink Bollworm Eradication Program in the State of Arizona.
2008 Sabbatical Leave with United Nations International Atomic Energy Agency, Vienna Austria.
2010 FIFRA Scientific Advisory Panel. Scientific Issues Related to Insect Resistance Management for SmartStax™ Refuge-in-the-Bag, a Plant-Incorporated Protectant (PIP) Corn Seed Blend. Dec 8-9, 2010 Washington, DC.

United Nations Joint FAO/IAEA Missions

1998 Advise Department of Agriculture Thailand on ecofriendly pesticides in fruit fly control.
2008-Current Applying GIS and Population Genetics for Managing Livestock Insect Pests working Group.
2008 Advise on Ethiopia Tsetse Control efforts in Lake Abaya Control Program
2009 Advise Tsetse control efforts by CIRAD (French Government Research Organization) in Senegal.
2010 Advise Tsetse control efforts by CIRAD (French Government Research Organization) in Senegal.

2012 Advise Tsetse control efforts by CIRAD (French Government Research Organization) in Senegal.
2013 Advise Tsetse control efforts by CIRAD (French Government Research Organization) in Senegal

Professional Affiliations

2008-present Philosophy of Science Association
1993-present Entomology Society of America
1997-present Society for the Study of Evolution
1996-present Sigma Xi, The Scientific Research Society
2000-present American Association for the Advancement of Science
2002-present The International Society for History, Philosophy, and Social Studies of Biology
2009-2010 (Organization discontinued at BYU) BYU Woman's Research Institute

Professional Development Activities

1996 Preparing the Professorate $1000.00, North Carolina State University
May 1 - May12, 2000 BYU Faculty Development Series, Spring Seminar.
May 15 - May 19, 2000 Teaching Writing in the Disciplines, Brigham Young University
Oct 1 - Oct 4, 2000. Short course on mathematical and biological complexity. Awarded $751.00 by organizing committee to cover transportation, lodging, food, and materials. University of Tennessee, Knoxville.

May 2001 General Education Conference, Brigham Young University
Jan. 2001 Publish Don't Perish Scholarly Writing Workshop, Brigham Young University
Jan. 2002 Publish Don't Perish Scholarly Writing Workshop, Brigham Young University
Fall 2007 German 101 (to prepare for Sabbatical in Vienna)

Teaching Assignments

Semester/year	course	Enrollment	Student Evaluations
Course / Teacher (max)			
N.C. State			
Ecology 517		15	none available
Duke			
Population Ecology (Env 216) Graduate Course		40	3.6/3.8 (5)
Chinese Academy of Science			
Summer 2000 Graduate Ecology (in Kunming, China)		8	none available
BYU			
Fall 2000	Environmental Biology (Bio 150)	52	5.4/5.4 (7)
Winter 2001	Ecology (Zool. 350)	92	4.1/5.1 (7)
Winter 2001	Ecology (Zool. 350) night	20	5.3/6.0 (7)
Fall 2001	Environmental Biology	46	5.9/6.1 (7)
Fall 2002	Environmental Biology (Bio 150)	54	6.3/6.5 (8)
Fall 2002	Honors Natural Science (Hon. 344)	3	7.7/7.7 (8)
Winter 2003	Ecology (Zool. 350)	100	6.5/6.8 (8)
Fall 2003	Environmental Biology (Bio. 150)	44	6.4/6.8 (8)

Winter 2004	Directed Research--Mentoring (Bio. 494)	3	7.7/7.7 (8)
Winter 2004	Honors Natural Science (Hon. 344)	7	7.4/7.6 (8)
Winter 2004	Experimental Sys. Eco (InBio. 656)	7	6.8/7.3 (8)
Fall 2004	Environmental Biology (Bio. 150)	40	6.9/7.6 (8)
Fall 2004	Directed Research--Mentoring (Bio. 494)	4	7.5/7.7 (8)
Winter 2005	Hist. & Phil. Biology (InBio 470)	18	7.3/7.4 (8)
Spring 2005	Directed Research--Mentoring (Bio. 494)	2	6.5/6/5 (8)
Spring 2005	Ecology (Biology 350)	23	6.7/7.5 (8)
Fall 2005	Ecology (Biology 350) team-taught	160	6.0/5.8 (8)
Fall 2005	Phil. Biology (InBio 470) team-taught	8	7.0/7.2 (8)
Winter 2006	Honors Environment/Rel. (344R)	18	6.8/7.3 (8)
Winter 2006	InBio 656 Ecology	8	7.0/8.0 (8)
Winter 2007	Phil. Biology	21	7.4/7.6 (8)
Fall 2007	Phil. Biology	8	7.7/7.7 (8)
Winter 2009	Religion & Environment	11	6.6/7.2 (8)
Fall 2009	Phil. Biology	21	7.0/7.4 (8)
Winter 2010	Bioethics (new class)	70	6.8/6.9 (8)
Fall 2010	Bioethics	68	6.9/6.9 (8)
Fall 2010	History and Philosophy of Biology	10	6.7/7.5 (8)
Winter 2011	Bioethics	80	7.1/7.0 (8)
Winter 2011	Religion & Environment	24	6.4/6.8 (8)
Fall 2011	Bioethics	68	7.1/7.2 (8)
Fall 2011	History and Philosophy of Biology	14	7.2/7.2 (8)
Winter 2012	Bioethics	77	7.1/7.0 (8)
Winter 2012	Simulation Modeling	8	7.3/7.7 (8)
Fall 2012	Bioethics	75	7.0/7.1 (8)
Fall 2012	History and Philosophy of Biology	16	7.4/7.1 (8)
Winter 2013	Bioethics	73	6.9/7.1 (8)
Winter 2013	Environment and Religion	18	7.4/7.3 (8)
Fall 2013	History and Philosophy of Biology	18	7.0/6.9 (8)
Fall 2013	Bioethics	79	7.0/7.1 (8)
Winter 2014	Bioethics	77	7.1/7.1 (8)
Winter 2014	Modeling and Simulation 555 (2)resp.	6	6.0/6.5 (8)
Fall 2014	Bioethics	77	7.1/6.9 (8)
Fall 2014	History and Philosophy of Biology	16	7.4/7.6 (8)
Winter 2015	Bioethics	80	7.2/7.0 (8)

Student mentoring since coming to BYU

79 Undergraduates Mentored in lab
26 Graduate student committees
3 Master's theses (Karen Foerer, Adrian Bell, Sariah Cottrell)
120 Letters of Recommendation's Written

Research Support

2016: College teaching grant: Targeted Modules on Writing Well for Bioethics (Bio 370) $6000

2016: NSF: Ecological Modeling and Theory Development in Tsetse Fly: Pre-Proposal: Declined to Invite.

2015: NSF: Biological community function and invasion in a changing world /w Sam St. Clair, Brock McMillan, Zachary Aanderud, & Rick Gill. Pre-Proposal: Invited; Full Grant: Declined

2015: Sant Fund for Student Nature Education. Ants in the Great Basin. $10,000.

2014: NSF: Biological community function and invasion in a changing world /w Sam St. Clair, Brock McMillan, Zachary Aanderud, & Rick Gill. Pre-Proposal: Invited; Full Grant: Declined

2014: NSF: Model-based Suppression of Tsetse Fly Metapopulations in West Africa, w/ Jeremy Bouyer (CRAID: France) Pre-Proposal: Declined

2014: Meg: Modeling the spatial population ecology of the trypanosome vector, Glossina palpalis gambiensis, in Niayes region of Senegal using agent-based models. Declined.

2014: Sant: Using Ants as a Bioindicator of Ecological Changes Due to Climate Change in Utah's Laccoliths. Pending.

2014: Kennedy Center Study Abroad: World Parks in a Changing World. With Brigham Daniels, BYU Law School. Pending.

2013. NSF: Model-based Suppression of Tsetse Fly Metapopulations in West Africa. PI: Steven L. Peck; Co-PI: Jeremy Bouyer (CIRAD: Dakar, Senegal). Status: Denied.

2013 NSF: Developing a community-level framework for understanding desert ecosystem responses to climate variability and disturbance. PI: Sam St. Clair; Co-PIs: Brock McMillain, Zachary Aanderud, Steven L. Peck, Richard Gill. Status: Denied.

2012. Redd Center. Annaley Neagle Redd Assistantship. Cattle Ranching in the La Sal Mountains of Southeastern Utah $8000.

2012. Denied. National Science Foundation. Spatial population ecology of trypanosome vector Glossina *Palpalis gambiensis* in Niayes region of Senegal. With French organization CIRAD & University Gaston Berger of Saint-louis, Senegal. $1,248,747, (Rated 'Very Good' by five reviewers, Poor by one).

2009. *Denied*. National Science Foundation. Modeling the effect of habitat fragmentation on the population ecology of tsetse and trypaonosomiasis control in Africa. $1,400,000. Denied.

2009. MEG (Mentored Education Grant), BYU Internal Grant: $20,000.

2008. Kennedy Center, BYU Internal Grant. $5000.

2007. UN-IAEA Sabbatical Leave Cooperative Research Grant $41,000.

2007 USDA-Pacific Basin Agricultural Research Center-supplement $15,000. Bacterial movement studies in Puna, HI.

2006 USDA- Pacific Basin Agricultural Research Center. $20,000. Bacterial movement studies in Puna, HI.

2006- Understanding Complex Modeling for Resistance Management. $20,000. US-EPA

2005-2009. USDA- Pacific Basin Agricultural Research Center-supplement. $20,00. Understanding the movement of *Bactrocera dorsalis* from mark-release-recapture studies and theoretical modeling studies: Enhancing wide-area control interventions.

August, 2002 USDA- Pacific Basin Agricultural Research Center. $18,000.
Title: *Modeling the agricultural, biological, and spatial-geographic aspects of wide area fruit fly control in Hawaii*. Enhancement award.

August 2002-2003. June Sucker Recovery Program, M. C. Belk and S. Peck. Development of a life-stage model for June sucker.

January, 2002, Kennedy Center. $2,500. Travel to attend conference in South Africa.

September, 2001. USDA- Pacific Basin Agricultural Research Center. $42,000.
Title: *Modeling the agricultural, biological, and spatial-geographic aspects of wide area fruit fly control in Hawaii*. Five Years Renewable.
PI: Steven L. Peck.

May 1, 2001. $12,765 Sant Endowment. Ant biodiversity and spatial distribution in the Great Basin: toward developing ants as an indicator of habitat change.
PI: Steven L. Peck.

August 3, 2001. $4727. Religious Studies Center. Natural Stewardship: Why we should care for the earth. LDS perspectives on the Environment.

August 31, 2001. $1500 Kennedy Center. Working in Tam Dao National Park, Vietnam.

April 6, 2000. $3000. Kennedy Center. 1 Year.
Title: Developing a program for Understanding Antibiotic Resistance in China.
PI: Steven L. Peck and Steven R. Hawks.

May 6, 2000. $6000. Awarded through Academic Vice Presidents Office for Undergraduate Research.
Title: Developing a laboratory strain of ants.

Academic Awards

2012 College of Life Sciences Outstanding Teaching Award

1999 Certificate of Merit USDA, Agriculture Research Service. $2000. For successful management and execution of the malathion-suredye-spinosad comparison tests assigned by ARS National Program Staff.

1998 Lucus Research Award. Department of Biomathematics. $200.00.
(Awarded to the best Dissertation or Thesis from the Biomathematics Department in 1997)

Service & Committees

Editorships

2008-present: Western North American Naturalist Editorial Board

Department
2014-Present Search Committee Chair
2012-Present Awards Committee
2012: Professional Development Committee Interim Chair
2007-2012: Biology Department Professional Development Committee
2010-2011 Arthropod Hire Search Committee

College

2012-Present Honors Coordinator
2008-2014 MEG Reviewer
2011 College Computer Committee
2010-current Faculty advisor for "Life, Universe and Everything Conference"
2001 College Scholarship Committee

University

2000-2008 Faculty Advisor for the Student Environmental Science Journal: Borrowed Earth

Peer reviewer for following journals

Acta Tropica, Agriculture and Human Values, Biology & Philosophy, Conservation Society, Ecological Applications, Ecological Theory, Ecology, Environmental Entomology, Evolution, Journal of Economic Entomology, Medical Principles and Practice, Philosophy of Science, PLoS One, Oikos, Royal Society B, Science, Transactions of the Society for Modeling and Simulation International.

Creative Writing

Decreation: Climate Change, Art, Science and Poetry. *Whtiefish Review*. 2020. 12(2): 39-45.

The Sacrifice (short story) *Dialogue*, Fall 2019 p. 117-160

(different poems than from Decreation from above) Decreation w/ Los Angeles Artist Jackie Leisham, (poetry collection) *Cold Mountain Review*: Fall/Winter 2019 Special Issue on Margins

The Tragedy of King Leere, Goatherd of the La Sals, 2019, (novel) BCC Press. Semi-finalist for the Big Moose Prize for new novel by Black Lawrence Press. Starred-Review at Publishers Weekly. Montaigne Metal Finalist. Short listed for the Eric Hoffer Award for Independent and Academic Presses. Category finalist in Eric Hoffer Awards.

Does the Plowman Heed the Mole's Cry? (Short Story), *Last Shot Fired: Midnight Writers' Anthology 2018*

A Strike to the Heart of the Cannon Lord (Short Story), *All Made of Hinges (A Mormon Steampunk Anthology Book 1)*, 2018

Eden's Cur (poem), *Passages: Best of NewMyths Anthology, Volume I*, 2018

Additions to St. Hildegard's 'Physica' (Poetry) *Prairie Schooner*. Summer June 1, 2017.

Gilda Trillim: Shepherdess of Rats (Novel), Roundfire Press. London and USA. 29 Sept. 2017. (Novel Award winner Association of Mormon Letters (AML) 2017)

Bishop Johansson Rescues a Lost Soul (Short Story)*, Dialogue* Fall 2016*,* AML Short Story award finalist 2017.

Tales of Pleasant Grove (Short Story Collection), 2018.

An Incomplete Slaughter (Short Story) *The Colored Lens*, Summer 2016. (Finalist for Best Short Story 2016 by the Association of Mormon Letters).

Harbingers (Short Story), *Dark Lane Anthology III*, (eds.) K.J. Bishop, Louis Rakovich. Dark Lane Books, London. 2016.

Wandering Realities (Short Story Collection) Zarehemla Books, July 2015 (AML Short Story Collection Finalist 2015)

Down Courthouse Wash (Short Story) *Perihelion Science Fiction Magazine*, January 2015

Tales from Pleasant Grove (Short Story) *Every Day Fiction*, May 2015

Démodé. (Short Story: 2014) *Nature Physics.* 10(1):80 doi:10.1038/nphys2860

Plague Ship (Short Story: 2013). Published in anthology *Space Eldritch II: The Haunted Stars.*

A Strange Report From the Archives. (Short Story, 2013) *Irreantum* (2nd Place contest winner)

How the Mother of Vampiro Rojo de Santanás Died at the Hand of the Ethicless Thing *(Short Story, 2013) Silverthought Press Online*

The Silence of the River (Short Story, 2013) *Quantum Realities* Vol. 2, Issue 2 (Quantum Realities: A Journal of Speculative Fiction)

Incorrect Astronomy. (Collection of Poetry: 2013) Aldrich Press.

Emergence (Short Story, 2013) *Encounters Magazine*.

What the Ant Knows & Walks the Ape Warder (Poetry: 2012) *Silver Blade*.

Dragonfly Miscalculations (Short Story: 2012) *The Journal of Unlikely Entomology*

Should I tell her? (Short Story: 2012) *Daily Science Fiction*. http://dailysciencefiction.com/

Rifts of Rime (Middle Grade Novel: 2012) Cedar Fort Press.

A Short Stay in Hell (Novel: 2012) Strange Violin Editions.

The Scholar of Moab (Novel: 2011) Torrey House Press. Finalist for the Hoffer Montaigne Medal & AML Best Novel of 2011.

Let the Mountains Tremble for Adoniha has Fallen (Science Fiction Novella: 2011) *Monsters and Mormons: Anthology*. Peculiar Press.

Four Poems. *In Fire in the Pasture: Mormon Poetry in the 21st Century*. (Poetry: 2011). Peculiar Press.

The five known sutras of Mechanical Man (Science Fiction/Poetry: 2010) *Tales of the Talisman* 6:4 (Nominated for the Rhysling Award)

Winter Gifts (Poetry: 2010) *Victorian Violet* 5

Sage (Poetry: 2008) *Red Rock Review* July

Ant Lion (Poetry: 2007) *Glyphs III*, 141-143

Gift of King's Jeweler (Novel: 2003). Covenant Communications.

The Flaw in the Lord Harrington Scenario (Short Story: 2001). *HMS Beagle* (online science journal by Elsevier)

Advice on Correct Astronomy (Poetry: 1991) *BYU Studies* 31:1

Reflections of Stellar Ecology (Poetry: 1993) *BYU Studies* 33:4

Winton Night Walks (Poetry: 1988) *Dialogue* 21:2

Creative Writing Awards

Starred-Review at Publishers Weekly. Montaigne Metal Finalist. Short listed for the Eric Hoffer Award for Independent and Academic Presses. Category finalist in Eric Hoffer Awards. *Tragedy of King Leere, Goatherd of the La Sals.*

2017 semi-finalist Big Moose Prize for unpublished literary novel, Black Lawrence Press *Tragedy of King Leere, Goatherd of the La Sals.*

2017 Novel Award Association of Mormon Letters (AML) for *Gilda Trillim Shepherdess of Rats*.

2016 Nominated for AML Best Short Story for *Incomplete Slaughter*.

2015 Nominated for AML best short story collection *Wandering Realities*.

2014 Association of Mormon Letters Best Short Story for *Two-dog Dose, Dialogue*

2012 Irreantum Literary Fiction Contest 2nd Place

2012 Best Novel published in 2011, Association of Mormon Letters, Finalist for the Hoffer Montaigne Medal, for *The Scholar of Moab,* Torrey House Press.

2011 Nominated for the Science Fiction Poetry Association's Rhysling Award for *"The five known sutras of Mechanical Man."*

2010 Sunstone Eugene England Memorial Essay Contest, 2nd Place .

2010 Honorable mention in the 2010 Brookie and D.K. Brown Fiction Contest for *The Problem*

2010 *Warp and Weave* Science Fiction Short story 1st place for *Stratton Yellows*.