

March 26, 2021

Lori Stevens
Curriculum Vitae

Current Position: Professor: University of Vermont

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Education: University of Chicago, Postdoctoral fellow 1987-1988
University of Illinois at Chicago, Ph.D., 1986-Biology
University of Illinois at Chicago, M.S., 1981-Biology and Math
University of Delaware, B.A., 1979-Mathematics and Biology

Professional Employment:

1999-present	Professor: University of Vermont
2012-2014	Program Director, Evolutionary Processes, National Science Foundation
1994-1999	Associate Professor: University of Vermont
1994-1995	Visiting Associate Professor: Washington University, St. Louis
1988-1994	Assistant Professor: University of Vermont
1987-1988	Research Associate: University of Chicago
Summer 1987	Research Associate: Mt. Lake Biological Station, Univ. Virginia
Spring 1987	Instructor: University of Chicago
1986-1987	Research Associate: University of Illinois, Chicago

Experience Highlights:

Director of Undergraduate Research, Biology Department: Improved course by (1) organizing, implementing and managing course and department learning goals highlighting learning through research, (2) developing with staff assessment and reporting activities on learning outcomes and (3) strengthening student writing by working with writing center to organize workshops and tutoring for posters and final papers.

Service learning study abroad: Grant writing, teaching and administration for Ecohealth and Forest Restoration project funded by 100K Strong in the Americas USAID (Department of State)/Cementos Progreso working with government and NGOs in Guatemala.

Internship Director: As part of the NSF NRT QuEST training grant organizing, implementing and managing graduate student internships. This includes identifying principles and best practices to develop, assess and report on identify sponsors, establish expectations, learning outcomes and MOUSs, etc.

Research Interests: Evolutionary genetics of host-parasite interactions including Chagas disease vectors and parasite and aquatic whirling disease in salmonid fishes using modeling, genomics and proteomics combined with field, laboratory and experimental studies.

Research Support (external):

- 100,000 Strong in the Americas. Innovation Fund. Cementos Progreso, Guatemala, United States Department of State. Americas for Forest and EcoHealth: A4FEH. PI: Stevens, coPIs Monroy USAC (Guatemala), Wallin (NDSU, USA) 01/01/2020 – 12/31/2020
- National Science Foundation NRT-1735316: Quantitative & Evolutionary STEM Training (QUEST): An Integrative Training Program for Versatile STEM Professionals to Solve Environmental and Global Health Problems. PI: Pespeni, M., coPIs: L. Stevens, S. Keller, L. Hebert-Dufresne, Vijay Kanagala, S. Scarpino 08/01/2017-07/31/2022. \$3,000,000.
- National Science Foundation Ecology and Evolution of Infectious Diseases DEB-1216193 Modeling disease transmission using spatial mapping of vector-parasite genetics and vector feeding patterns. PI L. Stevens, coPIs S. Cahan, P. L. Dorn, M. C. Monroy, L. Morrissey, D. M. Rizzo. 07/01/12—9/30/22. \$2,462,000.
- National Institutes of Health R03: Chagas disease transmission: Genomic studies of the kissing bug *Triatoma infestans* to enhance control strategies for a neglected tropical disease. PIs: Lori Stevens and Sara Cahan, P. L. Dorn (Consultant), Silvia Justi (PostDoc/Key Personnel) 06/25/16-5/31/19. \$155,000.
- National Geographic Society #9078-12. Assessing habitat of Chagas disease vectors integrating genetics and geospatial technologies. PI L. Stevens, coPIs D. M. Rizzo, L. Morrissey, J. C. Pizarro, W. Ribera, D. Lucero. March 1, 2012 - February 28, 2013. \$25,000.
- National Science Foundation Ecological Biology DEB-0842152. Collaborative Research: Biodiversity and Infectious Disease Risk, PI Stevens, coPI Rizzo, 03/01/09-02/29/12. \$310,870. With B. Kerans, Montana State University \$316,880.
- National Science Foundation REU: Research Experience for Undergraduates. DEB-0842152. Collaborative Research: Biodiversity and Infectious Disease Risk, \$6000. 05/01/2010-04/30/2011.
- National Science Foundation RAHSS: Research Apprenticeship for High School Students. DEB-0842152. Collaborative Research: Biodiversity and Infectious Disease Risk, \$12,000. 05/01/2010-04/30/2011.
- National Science Foundation RET: Research Experience for Teachers. DEB-0842152. Collaborative Research: Biodiversity and Infectious Disease Risk, \$15,000. 05/01/2010-04/30/2011.
- National Institutes of Health AREA: Taxonomy and Epidemiological Importance of Divergent Chagas Disease Vector Taxa, P. L. Dorn (PI), C. Monroy (Collaborator), L. Stevens (Consultant) 05/01/2009-04/30/2012. \$180,542.
- National Science Foundation VT EPSCoR RII, Complex Systems Modeling for Environmental Problem Solving. J. Van Houten (PI). 08/01/07 – 07/31/10. \$6,700,000.
- Subproject: UVM Faculty Pilot Project. Complex Systems Modeling Using Artificial Neural Networks. \$25,000. 07/01/08-06/30/09.
- Subproject: CSYS GRA: Complex Systems modeling to forecast biodiversity. GRA funding for Nilanjan Lodh for core project research for, \$15, 000, Spring 2008.

- National Science Foundation Division of Undergraduate Education, DUE-0436330. UBM - Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences. L. Stevens (PI). 09/04-06/09. \$760,001.
- National Science Foundation Division of Biological Infrastructure, DBI-0405409. Undergraduate Mentoring in Environmental Biology: Diversity & Excellence in Environmental Biology. L. Stevens (PI), D. Rizzo (co-PI). 07/04-06/09. \$434,000.
- National Science Foundation, Research Experience for Undergraduates. IBN- 0233901. Evolutionary Algorithms for Pathogen Defense. \$6000. 2003-2004.
- National Science Foundation, Ecological & Evolutionary Physiology. IBN- 0233901. SGER Evolutionary Algorithms for Pathogen Defense. L. Stevens (PI), D. Rizzo (co-PI). \$100,000. 2002-2004.
- National Science Foundation, IBN-9724037. Evolution and Genetics of Behavior. \$250,000. 1997-2001.
- National Science Foundation, Research Experience for Undergraduates. IBN-9724037. Evolution and Genetics of Behavior. \$10,000. 2001.
- National Science Foundation, Research Experience for Undergraduates. IBN-9724037. Evolution and Genetics of Behavior. \$5,000. 1999-2000.
- National Science Foundation, Research Experience for Undergraduates. IBN-9724037. Evolution and Genetics of Behavior. \$3500. 1998-1999.
- National Science Foundation, Division of Environmental Biology, Population Biology. DEB-9209695. Cytoplasmic incompatibility in flour beetles: A model of host-parasite coevolution. \$210,000. 1992-1997.
- National Science Foundation, Research Experience for Undergraduates. DEB-9209695. Cytoplasmic incompatibility in flour beetles: A model of host-parasite coevolution. \$5,000. 1994-1995.
- National Science Foundation, Research Experience for Undergraduates. DEB-9209695. Cytoplasmic incompatibility in flour beetles: A model of host-parasite coevolution. \$5,000. 1993-1994.
- National Science Foundation, Career Advancement Award. DEB-9407217. Molecular Genetics of Fitness in *Drosophila mercatorum*. \$55,500. 1994-1996
- National Science Foundation, Evolution and Ecology of Structured Populations. \$50,000. J. Herbers (PI), Co-PI's - C. J. Goodnight, B. Heinrich, C. W. Kilpatrick, J. J. Schall, L. Stevens. 1991-1994
- National Science Foundation, Research Experience for Undergraduates. BSR-8906347. Cytoplasmically Inherited Incompatibility Factors in the Flour Beetle, *Tribolium confusum*, \$5,000. 1991-1992.
- National Science Foundation, Research Experience for Undergraduates. BSR-8906347. Cytoplasmically Inherited Incompatibility Factors in the Flour Beetle, *Tribolium confusum*, \$4,000. 1990-1991.
- National Science Foundation, BSR-8906347. Cytoplasmically Inherited Incompatibility Factors in the Flour Beetle, *Tribolium confusum*, \$85,000. 1989-1991.

Research Support (internal):

CAS Summer Intern 2020: Kristen Dougherty \$3000.

APLE (Undergraduate Research Award). summer 2019. Student: Z. Holdorf. \$500.

College of Arts & Sciences SEED award. 2018. Identification and Quantification of Chagas Disease Vector Blood Meal Sources Using Protein Mass Spectrometry. \$7420.

APLE (Undergraduate Research Award). 2018. Student: Cai McCann. \$500.

Oppenheimer summer fellowship. summer 2018. Cai McCann.

APLE (Undergraduate Research Award). 2015. Student: Emi Eakena. \$500.

APLE (Undergraduate Research Award). 2015. Student: Toni Viola. \$500.

UVM OUR Summer Research Fellowship: Toni Viola, 2015, ~\$3000

Undergraduate Research Awards: Mini Grants Spring 2014. Student: Anthony Nigrelli, \$500.

APLE (Undergraduate Research Award). Spring 2013. Student: Vanessa Crain. \$500.

APLE (Undergraduate Research Award). Spring 2013. Student: Devon Sadloski. \$500.

APLE (Undergraduate Research Award). Spring 2012. Student: Reynaldo Peña. \$500.

APLE (Undergraduate Research Award). Student: Genesis Tejada. \$500. Fall 2011.

Undergraduate Research Award Mini-grant. Student: Ashley Jones \$500. Fall 2010.

Fund for Undergraduate Student Excellence. Student: Julia Hobson \$500. 2009.

UVM - VP Research – Research Opportunities. Geospatial Analysis of Disease Risk. 2008 – 2009. \$18,000.

HELiX/EPSCoR (Undergraduate Summer Award). Student: Robin Hicks. \$5000. 2008.

URECA! (Undergraduate Research Award). Student: Jacob Barker. \$4000. 2008-2009.

APLE (Undergraduate Research Award). Student: K. Kiley. \$500. Spring 2007.

APLE (Undergraduate Research Award) A genetic analysis of *Triatoma infestans*: A Chagas disease vector. Student: Lauren Gilligan. \$3000. Summer 2006.

URECA! (Undergraduate Research Award) Genetic analysis of Chagas disease vectors. Student: Lauren Gilligan. \$4000. 2005-2006.

HELiX (Undergraduate Research Award) Helping to reduce Chagas disease using vector molecular genetics. Student: Lindsay Christensen. \$151. Spring 2005.

URECA! (Undergraduate Research Award) Identifying the source of bloodmeals of Chagas disease vectors. Student: David Lucero. \$4000. 2004-2005.

A&S Dean's Faculty Development Fund. Developing microsatellites for Chagas disease vectors. \$1500. 2003-2004.

URECA! (Undergraduate Research Award). Student: Stephanie Paulk. \$4000. 2003-2004.

URECA! (Undergraduate Research Award) Developing techniques to identify species-specific blood meals. Student: James Wood. \$4000. 2003-2004.

EPSCoR Chagas Microsatellites \$5000. Nov. 2003- March 2004.

HELiX (Undergraduate Research Award) Student: Stephanie Paulk \$5000. Summer 2003.

- EPSCoR Graduate Research Assistantship. Computational Models for Research on Water in the Environment. With D. M. Rizzo, Department of Civil and Environmental Engineering. For J. C. Pizarro Cortez and T. M. Tucker. \$18,750. 2003-2004.
- A&S Dean's Development Fund. Workshop and Tutorials on Genetic and Evolutionary Computation. \$750. Summer 2003.
- URECA! (Undergraduate Research Award). Student: Stephanie Paulk. \$4000. 2002-2003.
- DOE-EPSCoR Computational Biology. Funding for graduate student: Thomas Tucker. \$17,000/year for 2 years. Jan. 2002-Dec 2003.
- EPSCoR minigrant. Preliminary Data for a Proposal on: Evolutionary Ecology of Defenses: Do costs constrain defense levels? \$6000. 2000-2002.
- SUGR/FaME (Graduate Research Award. Student: Tom Tucker, \$4000. 2001.
- SUGR/FaME (Undergraduate Research Award). Student: Jen Tremblay, \$2000. 2001.
- HELIX Undergraduate Research Award. Student: Jen Tremblay \$500. 2000.
- University Committee on Research and Scholarship. Genes for cannibalism behavior in the flour beetle, *Tribolium confusum*. \$5000. 1999-2000.
- SUGR/FAME (Undergraduate Award). Student: R. Saunders, \$2000. 1999-2000.
- SUGR/FAME (Undergraduate Award. Student: Christy Royer, \$2000. 1999-2000.
- HELIX Undergraduate Research Award. \$400. 1998.
- University Committee on Research and Scholarship, University of Vermont. "A molecular genetic map for the flour beetle, *Tribolium confusum*" \$5000. 1997-1998.
- Research Advisory Council, University of Vermont, "Respirometer to measure metabolic rate in insects", \$15,182. 1997. L. Stevens P.I.
- University Committee on Research & Scholarship. Fruit flies of the Hawaiian Islands: Collecting wild *Drosophila* and studying the molecular basis of traits. \$4000. 1994-1995.
- Research Advisory Council. PCR Apparatus. \$4000. 1991. L. Stevens P.I. with Co-P.I.'s T. Wilson, J. L. Van Houten, G. Happ, R. C. Ullrich and C. W. Kilpatrick.
- HELIX Undergraduate Research Award, Student: Dan Lapointe, \$200. 1991.
- University Committee on Research and Scholarship, Population Structure and Non-additive Genetic Variance in Jewelweed, *Impatiens capensis*. \$4380. 1991-1992.
- Faculty Development Travel Award, \$450. 1991.
- Research Advisory Council, University of Vermont, Microinjection Apparatus. \$15,285.1990. Co-P.I. with T. Wilson (P.I.), T. Otter, G. Happ, and D. Maughan.
- University Committee on Research and Scholarship. Studies on the interaction between a cytoplasmic microorganism and its flour beetle host. \$4000. 1988-1989.

TEACHING**Teaching Interests:**

Study Abroad
 Service Learning
 Graduate Student Internships
 Population Genetics
 Undergraduate Research Courses
 Environmental Biology
 Interdisciplinary Studies in Mathematics and Biology

Teaching Experience:

University of Vermont:

Americas for Ecohealth – Service Learning Study Abroad 2020-present
 Director: QuEST graduate student internships (2018-present)
 Population Genetics with Laboratory BIOL 254 Adv. Undergrad./Grad., 1993-present
 Director undergraduate research courses BIOL 098, 198 and 298 (2015 – 2020)
 CoDirector – Biology Honor’s courses: BIOL 208 (2016 - 2017)
 BCOR 011 (Majors first year biology with Laboratory 2010-2015)
 Biology 1 with Laboratory (First Year Biology, 1997-2004)
 Biology 2 with Laboratory (First Year Biology, 1989-92, 1996-1997)
 Ecology & Evolution in Structured Populations, Adv. Undergrad./Grad., 1991
 First-year seminar: Interdisciplinary Studies in Mathematics and Biology (2005),
 Environmental Biology (1996), Women's Health Issues (1999, 2001)
 Graduate Colloquia: Quest Seminar (2019-2020), Host-Parasite Population Genetics
 (2017), Host-Parasite Co-evolution (2003), Molecular Population Genetics
 (1997), The Genetics of Quantitative Traits (1995), Genetics of Host-Parasite
 Interactions (1993), Comparative Method in Ecology & Evolution (1991),
 Evolution of Sex (1989)

University of Chicago:

Field Biology (Junior/ Senior, 1987)

International student interns:

Student, year, duration, topic; Contributions and/or current position

Mariele Pellecer*, 2008, 3 weeks, Blood meal detection by PCR; Established molecular biology protocols at University of San Carlos, Guatemala

Roberto Garnica*, 2010, 3 weeks, Spatial analysis; Spatial analysis and GIS.

Lucia Herrera, 2012, 2 months, PhD. EMBL, Germany; Research Scientist, Copenhagen

Raquel Lima*, 2014, 2015-present, 3.5 months and current PhD student, Molecular genetics, bioinformatics, epidemiology; Molecular biology training, research advisor and mentor to University of San Carlos, Guatemala students

International student interns (continued):

Eli Solorzano*, 2015, 2 months, Molecular genetics, bioinformatics; Ministry of Health, Guatemala

Daniel Penados*, 2019, 2 months, Blood meal detection by mass spectrometry; Proteomics training for University of San Carlos, Guatemala students

Elisa la Parra, 2019, 2 months, Blood meal detection by mass spectrometry; Proteomics training for University of San Carlos, Guatemala students

Jose Pineda*, 2020, 2 months, Enhanced pipeline for detection of Chagas vector blood meal sources using LC-MS/MS.

* coauthor on peer reviewed publication

Workshops attended:

Using Yellowdig, 2020

Rubrics, UVM, Center for Teaching and Learning (CTL), 2019

Quest Diversity Workshop– Fall 2018, 2019

Genome Assembly and Annotation, Physalia, Berlin Germany, February 2018

Learning by Design Workshop, UVM, CTL, Spring 2017

Teaching Effectively Online, UVM, CTL Spring 2016

Digital Teaching and Learning Workshop, McGraw Hill, connect & Bb (blackboard) Williamsburg, VA, February 2011.

Case Studies Teaching in Science by Clyde Freeman Herreid, National Center for Case Study Teaching in Science, University of Buffalo. 2 day workshop, May 2006.

Workshops conducted:

Mentoring Writing in the Lab, Discussion leader UVM, Graduate Writing Center, February 2018

Spatial Analysis of genetic haplotypes of the Chagas Vector *Triatoma infestans*, Loyola University New Orleans, January 2016, January 2017, Fall 2018, Fall 2020

Systematics of *Triatoma dimidiata*, Antigua, Guatemala (with C. Monroy, P. Dorn, D. Rizzo and L. Morrissey) June 5-13, 2010 (20 attendees)

Molecular Ecology Workshop at Loyola University New Orleans, June 16-19. This workshop is part of a unique opportunity available to select Loyola biology students that are Public Health Research Scholars, a Board of Regents funded program run by Dr. Patricia Dorn.

Mentoring Activities:

UVM Faculty Mentoring, Christelle Vincent Mathematics Fall 2016-2020; Deborah Blom Anthropology 2018-present)

SACNAS conference, September 2010, Anaheim, CA supervised and mentored undergraduates; grad and undergraduate recruitment

McNair Scholar's Program: Ashley Jones, Summer 2010.

McNair Scholar's Program: Naomi Pollica, Summer 2009

SACNAS conference, October 2008, Salt Lake City, UT supervised and mentored undergraduates; grad and undergraduate recruitment

McNair Scholar's Program: Jia Yu, Summer 2008

SACNAS conference, October 2007, Kansas City, MO supervised and mentored undergraduates; grad and undergraduate recruitment

SIEMENS COMPETITION - Math: Science: Technology, Grace Weaver, Burlington High School, Burlington, VT - SEMIFINALIST 2006-07 (1 of less than 300 projects from 1660 students, written up in USA TODAY)

SACNAS conference, October 2006, Tampa, Florida
supervised and mentored undergraduates; grad and undergraduate recruitment

McNair Scholar's Program: Summer 2006, David Lucero

Workshop Panel Member for Probationary Faculty Promotion and Tenure, Spring 2006

McNair Scholar's Program: Summer 2005, Bior, K. Bior

Ecological Society of America, August 2005
supervised undergraduates: D. Pechenick, R. S. Mildrum, B. Akaogi, B. Schwartz

SACNAS conference, October 2005
supervised undergraduates, grad and undergraduate recruitment

Faculty Mentoring, 2000-2003.

Association for Women in Science, Fall 1993-2004, 4 students.
Including Amy Prenowitz, Monika Martick

Vermont High School Girls Mentoring Project, 1992-1999, 4 high school students
Amy Browne, IBM student, MMU student

VISIT, Minority Students in Science, 1992-4, 3 undergraduate students.
Christine Shell, 2 others

HELiX – EPSCoR High School Outreach Program 2003, 1996

SERVICE**Professional Service:**

Grant Proposal Panels:

National Science Foundation-Biological Integration Instit Reverse Site Visit (June 2020)
 National Science Foundation- Biological Integration Institutes (April 2020)
 National Institutes of Health- Emerging Infectious Diseases Research Centers (2019)
 National Institutes of Health-R15 Research Enhancement Award (Fall 2018)
 National Institutes of Health- Support of Competitive Research, SCORE (Fall 2016)
 National Science Foundation- Ecological Genetics (Fall 2016)
 National Science Foundation- Population & Community Ecology (May 2010)
 National Science Foundation- UBM Panel (May 2008)
 National Institutes of Health-Genetic Variation and Evolution (February 2008)
 National Research Council, Ford Foundation Fellowship Panel (March 2007)
 National Research Council, Jefferson Science Fellows program (February 2007)
 National Institutes of Health-Genetic Variation and Evolution (February 2007)
 National Institutes of Health-Genetic Variation and Evolution (October 2006)
 National Institutes of Health-Genetic Variation and Evolution (February 2006)
 National Science Foundation- REU Panel (2005)
 National Science Foundation- UMEB Panel (2005)
 National Institutes of Health-Genetic Variation and Evolution (October, 2005)
 National Research Council, Ford Foundation Fellowship Panel (2005)
 National Institutes of Health-Genetics and Evolution (February 2005)
 National Institutes of Health-Genetics and Evolution (2004)
 National Research Council, Ford Foundation Fellowship Panel (2003)
 National Science Foundation- Biocomplexity Panel (2000)
 National Science Foundation- Population Biology Panel (1999)
 National Research Council, Ford Foundation Fellowship Panel (1998)
 National Science Foundation - Career Advancement/Research Planning (1997)
 National Research Council, Ford Foundation Fellowship Panel (1997)
 National Institutes of Health-Tropical Medicine and Parasitology (1996)
 National Research Council, Ford Foundation Fellowship Panel (1996)
 National Science Foundation - Population Biology Panel (1995)
 National Science Foundation - Dissertation Improvement Panel (1994)

External Review Panel:

Ohio State NSF Undergraduate Training in Mathematics and Biology Program:
 BioMathematic Training: Creating the Next Generation of BioMath Stars at Ohio
 State University 2008-2013.

Manuscript Reviews:

Acta Tropica
Annals of the Entomological Society of America
American Naturalist
Behaviour
BMC Infectious Diseases
Conservation Biology
Ecological Entomology
Ecology
Emerging Infectious Diseases
Entomologia experimentalis et applicata
European Journal of Entomology
Evolution
Evolutionary Ecology
Genetics
IEEE Transactions in Evolutionary Computation
Infection, Genetics and Evolution
Journal of Chemical Ecology
Journal of Economic Entomology
Journal of Heredity
Journal of Insect Behavior
Journal of Invertebrate Pathology
Journal of Vector Ecology
Molecular Biology and Evolution
Molecular Phylogenetics and Evolution
Parasite
Parasites and Vectors
PloS Neglected Tropical Diseases
Plos One
Proceedings of the Royal Society of London, B, Biological Sciences

Book Review: New York Entomological Society

Editorial Board: Associate Editor: Evolution 1997-1999

Ad Hoc Grant Proposal Reviews:

Wellcome Trust - Tropical Disease Fellowship 2010
National Science Foundation: 2007 – 1, 2006-1, 2005-2, 2004-3
United States Department of Agriculture
National Institutes of Health
United States-Israel Bi-national Science Foundation (BSF)
Ford Foundation - National Research Council

PRESENTATIONS

Invited Symposia

Society of Vector Ecology (SOVE) 2018 - Stevens

SOVE 2017 – Monroy

SOVE – 2017 – Dorn

QUEST – NSF 2018 - Stevens

Kerans, B. L. and L. Stevens. 2011. “Does biodiversity of the alternative host influence whirling disease dynamics? American Fisheries Society Annual Meeting, Seattle WA.

Hicks R, Stevens L. 2009. Genetic population structure of *Triatoma dimidiata*. Public Health Research Scholars Symposium, Laboratorio de Entomología Aplicada y Parasitología - LENAP, Escuela de Biología de la Facultad de Ciencias Químicas y Farmacia de la Universidad de San Carlos de Guatemala; Guatemala City, Guatemala, June 2009.

Hobson J, Stevens L. 2009. Analysis of Feeding of Chagas Disease Vectors from California, USA. Public Health Research Scholars Symposium, Laboratorio de Entomología Aplicada y Parasitología -LENAP, Escuela de Biología de la Facultad de Ciencias Químicas y Farmacia de la Universidad de San Carlos de Guatemala; Guatemala City, Guatemala, June 2009.

UBM Symposium, Society for Mathematical Biology: Gilligan, L. J. C. Pizarro, L. Purvis and L. Stevens. Vector control of *Triatoma infestans* in Bolivia: a molecular genetic approach. Society for Mathematical Biology, San Jose, CA, August 2007.

UBM PI Meeting. National Science Foundation, Washington DC. March 2006. Opportunity to network. NSF program directors learn about progress of UBM program.

Segunda Feria Exposición Científica y Tecnológica e Innovación “San Francisco Xavier-2006”, primer lugar en la categoría “Equipo docente”, área de salud, Análisis de la diversidad genética del *Triatoma infestans*, vector de la enfermedad de Chagas utilizando marcadores microsatélites amplificadas por PCR. Chuquisaca, Bolivia, 2006. (con Juan Carlos Pizarro Cortez, M. Sc.; Wilma Ribera Céspedes, M.Sc., Sandra Ballón Sánchez; Carolina Vilaseca).

Primera Feria Exposición Científica y Tecnológica “San Francisco Xavier- 2005”, primer lugar en la categoría “Equipo docente”, área de salud, junio 2005 (con Juan Carlos Pizarro Cortez).

Endogenous Defense Workshop, DARPA/DSO, Fairfax, Virginia, July 2004.

Conference on Chagas Disease in Chuquisaca, Bolivia. University of San Francisco Xavier de Chuquisaca, Sucre, Bolivia. November 2003.

Special Topics Course “Patterns in biology: an integrative approach to the organism”. University of Puerto Rico, April 2002.

Sex, mating systems, inbreeding and parasites, ETH Zentrum, Zürich, Switzerland, 1998.

Small Population Biology National Science Foundation-RTG Symposium on Parasites and Pathogens, University of Maryland, 1998.

Multi-level selection, American Society of Naturalist-Ecological Society of America, with C. J. Goodnight, Rhode Island 1996.

Cannibalism and Infanticide, American Society of Zoologists, Canada, 1992.

Arthropod Behavioral Genetics, Entomological Society of America Meeting, Nevada, December 1991.

Host-Parasite Interactions & Evolution of Reproductive Characteristics, International Congress on Systematics and Evolutionary Biology & Society for the Study of Evolution, Maryland, 1990.

Workshop Presented: Public Health Research Scholars. Loyola University, New Orleans, LA June 2008.

Refereed Conference Proceedings:

- Hanley, J. P., Rizzo, D. M., Monroy, C., Rodas, A., Stevens, L., & Dorn P (2016). "Using a Novel Evolutionary Algorithm to More Effectively Apply Community-Driven EcoHealth Interventions in Big Data with Application to Chagas Disease." American Geophysical Union, San Francisco, California, USA.
- Goff, P., H. Harder, A. Hulse, L. Pierce, J. Hanley, L. Orantes, S. Justi, L. Stevens, P. Dorn, C. Monroy, S. Cahan and D. Rizzo (2015). Training the Next Generation of Scientists: System Dynamics Modeling of Chagas Disease (American Trypanosomiasis) transmission. AGU Fall Meeting 2015. San Francisco, CA.
- Hanley, J., S. A. Stevens-Goodnight, S. Kularni, D. M. Bustamante, N. Fytilis, P. Goff, M. C. Monroy, L. A. Morrissey, L. Orantes, L. Stevens, P. L. Dorn, D. E. Lucero, J. Rios and D. M. Rizzo (2012). Training Systems Modelers through the Development of a Multi-scale Chagas Disease Risk Model. AGU Fall Meeting 2012. San Francisco, CA, EOS Transactions.
- Fytilis, N., Lamb R., Kerans B., Stevens L., Rizzo D.M. 2011. Examination of the relationship between host worm community structure on transmission of the parasite, *Myxobolus cerebralis* by developing taxon-specific probes for multiplex qPCR to identify worm taxa in stream communities. American Geophysical Union. San Francisco, CA, USA. EOS Transactions, Fall Meeting 2011; San Francisco, CA.
- Pearce, A., Watzin M.C., Mouser P.J., Stevens L., Hayden N.J., Druschel G., Rizzo D.M. Using Self-Organizing Maps to explore hydrochemical and biological datasets. American Geophysical Union, EOS Transactions Abstract H11E-0865; 2010 Fall Meeting, December 2010; San Francisco, CA.
- Fytilis, N., S. Wyman, R. Lamb, L. Stevens, B. Kerans, P. W. Goff, S. Mueller, S. Wolfstein and D. M. Rizzo 2010. Training the next generation of scientists: Modeling Infectious Disease and Water Quality of Montana Streams. American Geophysical Union. San Francisco, CA, USA. EOS Transactions, 90(52): ED53B-0537.
- Fytilis, N., Lamb, R., Goff, P., Stevens, L., Morrissey, L., Kerans, B., Rizzo, D.M., 2010. Linking spatially distributed biogeochemical data with a two – host life – cycle pathogen: A model of whirling disease dynamics in salmonid fishes in the Intermountain West. AGU Fall Meeting 2010. San Francisco, CA.
- Stevens L, Rizzo DM 2009. A Mentoring Program in Environmental Science for Underrepresented Groups. AGU Fall Meeting 2009. San Francisco, CA.
- Fytilis N, Mathon B, Rizzo DM, Stevens L, Morrissey L (2009) Integrating geomorphic and habitat assessments to classify streams using artificial neural networks AGU Fall Meeting 2009. San Francisco, CA.
- Pearce, A. J., P. J. Mouser, L. Stevens, G. K. Druschel and D. M. Rizzo. Mapping Aquifer Zones Based on Microbial Ecology and Geochemistry in a Landfill Leachate Plume with a Self Organizing Map, R. W. Babcock Jr. and R. Walton (editors), ASCE 2008 World

- Water & Environmental Resources Congress, Environmental and Water Resources Institute, Honolulu, HI, May 2008.
- Mouser, P.J., D.M. Rizzo, P. O’Grady, S. E. Morales, N.J. Hayden, G. Druschel, and L. Stevens. “Using Microbial Community Profiles for Delineation and Long-Term Monitoring of a Landfill Leachate-Contaminated Plume”. GSA. T29. The Use of Molecular Techniques to Assess Microbial Community Structure and Function in Aquifer Systems Philadelphia Annual Meeting. October 22-25, 2006.
- Mouser, P.J., D.M. Rizzo, P. O’Grady, S.E. Morales, N. Hayden, G. Druschel, and L. Stevens. “Improved Site Assessment of the Delineation and Attenuation of a Landfill-Leachate Plume using Microbial Community Profiles.” The 22nd Annual International Conference on Soils, Sediments and Water. October 16-19, 2006.
- Li, Z., D.M. Rizzo, N.J. Hayden and L. Stevens. “Using Geostatistics and Artificial Neural Networks to Determine the Location of a Contaminant Source”, ASCE 2006 GeoCongress: Geotechnical Engineering the Information Technology Age, Atlanta, GA, February 26 – March 1, 2006.
- Rizzo, D.M., P.J. Mouser, G.K. Druschel, P. O’Grady, N.J. Hayden, and L. Stevens. “Innovative Methods for Integrating Knowledge for Long-Term Monitoring of Contaminated Groundwater Sites: Understanding Microorganism Communities and their Associated Hydrochemical Environment.”, EOS Transactions, American Geophysical Union, (Abstract: 5220, Paper: H41F-0477), San Francisco, CA, December 2005.
- Weber, E.P., L. Stevens, and D.M. Rizzo. “The Ecology and Evolution of Local Adaptation”. Genetic and Evolutionary Computation Conference GECCO, Chicago, IL, July, 2003.

Recent Papers and Posters (Non-refereed):

2018

- Keller – SOVE
- Lima – SOVE
- Stevens – NSF - QuEST

2015

- Gallaspy, M., A. McClure, A. S. Woods, M. C. Monroy, L. Stevens and P. L. Dorn (2015). Chagas parasite strain TcI predominates in the main insect vector *Triatoma dimidiata* from Mexico through Central America. EEID. Athens, GA.
- Hanley, J., L. Stevens, M. C. Monroy, D. M. Bustamante, L. Orantes, L. A. Morrissey, S. Cahan, P. L. Dorn and D. Rizzo (2015). A Comparative Study of Feature Selection Using Logistic Regression and ExSTraCS: Determining Significant Risk Factors of *Triatoma dimidiata* Infestation. EEID. Athens, GA.
- Pessoa, R., N. M. de la Rúa, A. S. Woods, L. Stevens, M. C. Monroy and P. L. Dorn (2015). Is *Triatoma dimidiata* a Species Complex? Clarifying Phylogenetic Relationships Using Two Mitochondrial Genes. EEID. Athens, GA.

2014

- Dorn, P. L., N. M. de la Rúa, H. Axen, N. Smith, B. Richards, J. Charabati, J. Suarez, C. Monroy, J. Maradiaga, C. W. Kilpatrick, E. Dumonteil and L. Stevens (2014).

- Phylogeography of *Triatoma dimidiata* (Latreille, 1811) using hypothesis testing, nuclear ITS-2 and mitochondrial cytochrome b genes. EEID. Ft. Collins, CO.
- Dorn, P. L., N. M. de la Rúa, H. J. Axen, N. Smith, B. Richards, J. Charabati, J. Suarez, M. C. Monroy, J. Maradiaga, C. W. Kilpatrick, E. Dumonteil and L. Stevens (2014). Hypothesis testing clarifies *Triatoma dimidiata* (Latreille, 1811) systematics using nuclear ITS-2 and mitochondrial cytochrome b genes. American Society for Tropical Medicine and Hygiene. New Orleans, LA.
- Lodh, N., D. M. Rizzo, B. L. Kerans, S. McGinnis, N. Fytilis and L. Stevens (2014). Assessment of spatial, community and genetic structure of stream dwelling tubificid worms in Montana, USA. American Society of Parasitologists. New Orleans.
- McClure, A., K. Castillo, A. S. Woods, C. Monroy, L. Stevens, S. Cahan and P. L. Dorn (2014). *Trypanosoma cruzi* strains circulating in the Chagas insect vector, *Triatoma dimidiata*, across its geographic range. Ecology and Evolution of Infectious Diseases Conference. Fort Collins, Colorado.
- McClure, A., M. Gallaspy, K. Castillo, A. S. Woods, C. Monroy, N. M. de la Rúa, L. Stevens, S. Cahan, D. Rizzo and P. L. Dorn (2014). Strains of the Chagas parasite, *Trypanosoma cruzi*, in *Triatoma dimidiata* from across its geographic range. Ecology and Evolution of Infectious Diseases. Ft. Collins, CO.
- Orantes, L., P. L. Dorn, J. Hanley, C. Monroy, L. A. Morrissey, B. Richards, D. Rizzo, L. Stevens and S. Cahan (2014). Community Genomics of Chagas Disease in Central America. Ecology and Evolution of Infectious Diseases Conference. Fort Collins, CO.
- Orantes, L., L. Stevens, P. L. Dorn, R. Fredericksen, J. P. Hanley, L. A. Morrissey, D. M. Rizzo, M. C. Monroy, K. F. Wallin and S. I. Cahan (2014). Community genomics of the Chagas Disease vector, *Triatoma dimidiata*: uncovering genetic variation and gut microbial fauna of a deadly kissing bug. Entomological Society of America.

2013

- Lamb, R. D., N. Fytilis, B. L. Kerans, L. Stevens and D. Rizzo (2013). Disease Patterns from Field Assays: Linkages Between Tubificid Community Composition and *Myxobolus cerebralis* Transmission, the Cause of Salmonid Whirling Disease. Society for Freshwater Science Annual Meeting. Jacksonville, FL, USA.
- Lamb, R., B. Kerans, N. Fytilis, L. Stevens and D. Rizzo (2013). Non-host Tubificids alter the transmission dynamics of *Myxobolus cerebralis*, the causative agent of salmonid whirling disease. Freshwater Science.
- Orantes, L., P. Dorn, J. Hanley, L. Morrissey, B. Richards, D. Rizzo, L. Stevens and S. Cahan (2013). Community Genomics of Chagas disease: Uncovering variation in vector, parasite, blood meal source and gut microbial community through RADtag sequencing of the Chagas Disease Vector, *Triatoma dimidiata*, across three geographical scales in Central America. 11th Annual Ecological Genomics Symposium. Kansas City MO.

2012

- Dorn, P. L., N. M. de la Rúa, M. Menes, D. M. Bustamante, M. C. Monroy, D. M. Rizzo, C. W. Kilpatrick and L. Stevens (2012). Phylogenetic Relationships of Central and North American *Triatoma* Inferred from DNA and Morphometry. MEEGID XI. New Orleans, LA.

- Fytilis, N., D. Rizzo and L. Stevens (2012). A Bayesian approach to genetic data (PCR) to better understand fish disease dynamics. UVM Student Research Conference. 0842152. Burlington, VT.
- Lamb, R., B. L. Kerans, N. Fytilis, L. Stevens and D. Rizzo (2012). Non-host Tubificids Alter the Transmission Dynamics of *Myxobolus cerebralis*, the Causative Agent of Salmonid Whirling Disease. Society for Freshwater Science Annual Meeting. Louisville, KY.
- Lucero, D., J. Pizarro, W. Rivera, L. Stevens, M. Morrissey and D. Rizzo (2012). Probing for Drivers of Chagas Vector Infestation in Rural Bolivia. MEEGID XI. New Orleans, LA.
- Lucero, D. L., L. Stevens, L. A. Morrissey, D. Rizzo, J. C. Pizarro and W. Ribera (2012). Probing for risks of Chagas vector infestation in rural Bolivia. University of Saint Francis Xavier of Chuquisaca, . Sucre, Bolivia.

2011

- Lamb, R. B. Kerans, J. Bischoff, and L. Stevens. 2011, Diversity and disease: a mechanism by which tubificid diversity may influence transmission of the myxozoan parasite that causes salmonid whirling disease. Society for Freshwater Science. Providence RI. May 2011.
- *Best poster presentation in applied research

2010

- Jones, A., D. Lucero, J. C. Pizarro and L. Stevens 2010. Generation of Genetic Epidemiological Clusters of the Chagas Disease Vector, *Triatoma infestans*, in Bolivia. SACNAS. California.
- Lodh, N., L. Stevens, D. M. Rizzo, B. Mathon and B. Kerans 2010. A multiplex qPCR assay to identify tubificid taxa in stream communities. 2010 Vermont National Science Foundation Experimental Program to Stimulate Competitive Research (VT NSF EPSCoR) Annual Conference: Water Systems and Land Use Interactions. Burlington.
- Pearce A, Rizzo DM, Watzin MC, Druschel G, Smith LG, Stevens L. 2010. Exploring controls on cyanotoxin production in Lake Champlain using a complex systems tool. Vermont EPSCoR Annual Meeting; Burlington, VT, March 2010.
- Mathon B, Fytilis N, Stevens L, Klein M, Alexander G, Rizzo DM. 2010. Classifying Vermont stream habitat condition using a generalized regression neural network Vermont Geological Society Winter Meeting; Norwich University, Northfield, VT, February 2010.

2009

- Schmidt J, Dorn P, Stevens L, Klotz J, Klotz SA. 2009. Nexus of *Trypanosoma cruzi*, Triatomine bugs and Anaphylaxis in the Southwest. Entomological Society of America 57th Annual Meeting; Indianapolis, Indiana, December 2009.
- Hobson J, Desu S, Krymkowski A, Lucero D, Rizzo DM, Stevens L. 2009. Development and parameterization of a model on Chagas disease using STELLA®. NIMBioS Undergraduate Research Conference; Knoxville, TN, October 2009.
- Stevens L, Lodh N, Rizzo DM, Mathon B, Kerans BL. 2009. A DNA based method to identify oligochaete taxa in stream communities in the Madison River, MT, USA. International Society of Aquatic Oligochaetes; Turkey, October 2009.

- Mathon B, Rizzo DM, Stevens L, Lodh N, Fitis N, Morrissey L, Klein M, Burnham D, Fiske S. 2009. Linking geomorphology, habitats, and biota in streams using artificial neural networks (ANNs). Vermont EPSCoR Annual Meeting; Burlington, VT, USA, June 2009.
- Kerans B, McGinnis S, McMahon TE, Lodh N, Stevens L. 2009. Factors related to spatial patterns in whirling disease risk North American Benthological Society (NABS) 57th Annual Meeting; Grand Rapids, MI, USA, May 2009.
- Lodh N, Stevens L, Kerans B. 2009. Genetic variability of *Tubifex tubifex*, the intermediate host of whirling disease. North American Benthological Society (NABS) 57th Annual Meeting; Grand Rapids, MI, USA, May 2009.
- Hicks R, Stevens L. 2009. Using Molecular Ecology to Control Chagas Disease in Guatemala: Genetic Population Structure analysis of the insect vector *Triatoma dimidiata*. UVM Student Research Conference; Burlington, VT, USA, April 2009.
- Hobson J, Barker J, Stevens L. 2009. Analysis of the Feeding of Chagas Disease Vectors. UVM Student Research Conference; Burlington, VT, USA, April 2009.
- Krymkowski A, Pollica N, Desu S, Stevens L. 2009. Systems Modeling of Chagas Disease in Bolivia, Argentina, and Guatemala. UVM Student Research Conference; Burlington, VT, USA, April 2009.
- Lodh N, Stevens L. 2009. Impact of Genetic Variability of *Tubifex tubifex*, the Intermediate Host of Whirling Disease. UVM Student Research Conference; Burlington, VT, USA, April 2009.
- Lucero D, Stevens L. 2009. Uncovering the Insect Vector Behind Chagas Disease. UVM Student Research Conference; Burlington, VT, USA, April 2009.
- Barker J, Pollica N, Lucero D, Pizarro JC, Rizzo DM, Pearce A, Stevens L. 2008. Classifying Parasitic Infections in Chagas Diseases Vectors Using Artificial Neural Networks. . Society for Mathematical Biology Annual Meeting; Toronto, Canada, August 2008.
- *Best Student Poster Award
- Yu J, Stevens L, Rizzo DM, Pearce A, Morrissey L, Lodh N, Kerans B. 2008. Investigating the Spatial Distribution of the Host of *Myxobolus cerebralis*, *Tubifex tubifex* and Other Stream Macroinvertebrates. Society for Mathematical Biology; Toronto, Canada, 2008.
- Kerans BL, McGinnis S, McMahon TE, Lodh N, Stevens L. 2008. Factors related to spatial patterns in whirling disease risk. North American Benthological Soc, Wisconsin 2008.
- Lodh N, Stevens L, Kerans BL. 2008. Genetic Variability of *Tubifex tubifex*, the Intermediate Host of Whirling Disease. North American Benthological Society; Wisconsin, July 2008.
- Lucero, D., L. Stevens. Chagas disease vectors. UBM PI Meeting, Columbus, OH, 2008.
- Stevens, L. B., B. Kerans, N. Lodh, and D. M. Rizzo. Counterpropagation Artificial Neural Networks to Predict Tubificid Biodiversity and Disease Risk. Vermont EPSCoR 2008 Annual Meeting. Burlington, VT. June 2008.
- Cox, M. and L. Stevens. Interdisciplinary training in mathematics and biology. UBM PI Meeting, Columbus OH. June 2008.
- Lodh, N, L. Stevens and B. Kerans. Spatial and Temporal Variation in the Incidence of Whirling Disease in the Intermountain West. UVM Student Research Fair. April 2008.
- Gilligan, L. M., L. Stevens, J. C. Pizarro. A Population Study of the Chagas Disease Vector *Triatoma infestans* Using a Molecular Genetic Approach. UVM Student Research Fair. April 2008.

2007

- Barker, J., C. Corcoran, J.C. Pizarro and L. Stevens. Statistical Distributions of Parasitic Infections in Insect Vectors. Society for Mathematical Biology, San Jose, CA, 2007.
- Baldwin, S., L. Stevens, D. Rizzo, D. and A. Pechenick. Automation of triactinomyxon counting using MATLAB functions. Society for Math. Biology, San Jose, CA, 2007.
- Gilligan, L. J. C. Pizarro, L. Purvis and L. Stevens. Vector control of *Triatoma infestans* in Bolivia: a molecular genetic approach. Society for Math. Biology, San Jose, CA, 2007.
- Gilligan, L., J.C. Pizarro, L. Purvis and L. Stevens. Microsatellite markers reveal a high population structure in a Chagas Disease vector in Chuquisaca, Bolivia. Tri-Beta Biological Honors Society Regional Conference, University of Rochester, April 2007.
- Lodh, N. and L. Stevens. Distribution and Severity of Whirling Disease in Natural Streams of United States. UVM Graduate Student Research Fair. 2007
- Gilligan, L., J.C. Pizarro, L. Purvis, L. Stevens. Microsatellite markers reveal a high population structure in a Chagas Disease vector in Chuquisaca, Bolivia. UVM, 2007.
- *First Place – Life and Medical Sciences.**

2006

- Li, Z., D.M. Rizzo, N.J. Hayden and L. Stevens. Utilizing Artificial Neural Networks to Backtrack Source Location. JEMs 2006: Summit on Environmental Modelling & Software, Burlington, VT. July 9-12, 2006.
- Gilligan, L. J.C. Pizarro and L. Stevens. Molecular Genetics of *Triatoma infestans* using microsatellites. URECA! Poster presentation, University of Vermont, April 2006.

2005

- Mouser, P.J., D.M. Rizzo, P. O’Grady, L. Stevens, N. Hayden, G. Druschel and B. Schwartz. “Innovative Methods for Integrating Knowledge for Long-Term Monitoring of Contaminated Groundwater Sites”, Vermont EPSCoR, Burlington, VT. August 15, 2005.
- Li, Z., D.M. Rizzo, L. Stevens, N. Hayden and X. Wei. “Using Geostatistics and Artificial Neural Networks to Determine the Location of Contaminant Sources”, Vermont EPSCoR: People, Ideas & Tools, Three Years of Science & Technology Infrastructure Improvements in Vermont. Burlington, VT. August 15, 2005.
- Mouser, P.J., Rizzo, D.M., P. O’Grady, and L. Stevens. “Classifying attenuation Processes using Microbiology Profiles, Geochemistry, and Artificial Neural Networks from Landfill-Leachate Contaminated Groundwater. Annual North Atlantic Chapter Regional Soc Environmental Toxicology & Chemistry (NAC SETAC), Burlington, VT, June 2005.

2003

- Rizzo, D.M., L. Stevens and E. Weber. Interdisciplinary workshop in evolutionary computing. University of Vermont, Solving groundwater inverse problems using genetic algorithms. April 2003.
- Tucker, T. M. and L. Stevens. DOE EPSCoR retreat. April 2003.

2000

- Giray, T. and L. Stevens. Entomological Society of America Meeting, Montreal, Canada – Age or experience: foraging performance of honey bees. December 2000

Recent Invited Seminars:

Microbiology and Molecular Genetics, UVM, 2020
 Universidad de San Carlos, Guatemala City, Guatemala, 2017
 Infectious Disease Unit, Fletcher Allen Hospital, 2014
 University of Montana, Bozeman, MT, 2007
 University of Massachusetts, Amherst, MA, 2007
 Christopher Columbus High School, Bronx, NY 2004
 University of San Francisco Xavier de Chuquisaca, Sucre, Bolivia 2004
 University of Puerto Rico, Rio Piedras, PR, 2002.
 University of Massachusetts, Amherst, MA, 2000.
 Clarkson University, Potsdam, NY, 2000

Graduate and Postgraduate Students (student, degree, years of study, current position)

Peter Goff – MS 1992, Science Department Head, Vermont Commons School
 Guiyun Yan – PhD. 1993, Professor, University of California, Irvine
 Ann Yezerski – M.S. 1997; PhD. 1999, Associate Professor, King’s College, PA
 Tugrul Giray – Postdoc 2000, Associate Professor, Univ. of Puerto Rico
 Roberto Fialho – PhD. 2001, deceased
 Angelia Viley – MS 2001, MaxCyte, Bethesda, MD
 Thomas Tucker – M.S. 2004, cytogeneticist, FAHC, Burlington, VT
 Juan Carlos Pizarro Cortez – PhD, 2006, Professor, USFX, Sucre, Bolivia
 Bree Mathon*, Civil and Environmental Engineering, PhD, 2010
 Nilanjan Lodh, PhD. 2012
 David Lucero, PhD, 2013
 Nicholas M. de la Rua, MS, 2012
 Nikos Fytillis*, Civil and Environmental Engineering, PhD, 2013
 Joseph Gallant, MS 2017
 Judith Keller,** PhD, 2018
 Raquel Lima, PhD, expected 2020

*co-advised with Donna Rizzo

** co-advised with Bryan Ballif

Collaborators and other affiliations

Collaborators (other than students and advisors)

Silvia Justi, Walter Reed Biosystematics Unit, Suitville, MD
 Patricia Dorn, Department of Biology, Loyola University, New Orleans, LA
 M. Carlota Monroy, Biología, Universidad de San Carlos de Guatemala
 Stephen Klotz, Department of Medicine, University of Arizona, Tucson, AZ
 Justin Schmidt, Southwestern Biological Institute, Tucson, AZ,

Graduate and Post Doctoral advisors

MS – John Lussenhop, University of Illinois at Chicago (deceased)
 PhD – David Mertz University of Illinois at Chicago (deceased)
 PostDoc – Michael Wade –University of Chicago (now Indiana University)

PUBLICATIONS

Peer Reviewed Publications (*undergraduate coauthors)

1. Penados* D, Pineda* J, Catalan M, Avila M, Stevens L, Agreda E, Monroy C. Infestation dynamics of *Triatoma dimidiata* in highly deforested tropical dry forest regions of Guatemala. Mem Inst Oswaldo Cruz. 2020;115:e200203. doi: 10.1590/0074-02760200203. PMID: 33146245; PMCID: PMC7592497.
2. Hanley JP, Rizzo DM, Stevens L, Helms Cahan S, Dorn PL, Morrissey LA, Rodas AG, Orantes LC, Monroy C. Novel Evolutionary Algorithm Identifies Interactions Driving Infestation of *Triatoma dimidiata*, a Chagas Disease Vector. 2020. Am J Trop Med Hyg. 103:735-744. doi: 10.4269/ajtmh.18-0733. PMID: 32524965; PMCID: PMC7410465.
3. Andrade Justi S, Soghigian J, Pecor DB, Caicedo-Quiroga L, Rutvisuttinunt W, Li T, Stevens L, Dorn PL, Wiegmann B, Linton, Y-M. 2020. From e-voucher to genomic data: Preserving archive specimens as demonstrated with medically important mosquitoes (Diptera: Culicidae) and kissing bugs (Hemiptera: Reduviidae). PLoS ONE. Accepted Feb 1, 2021.
4. Cahan, S.H., Orantes, L.C., Wallin, K.F., Hanley, J.P., Rizzo, D.M., Stevens, L., Dorn, P.L., Rodas, A., Monroy, C., 2019. Residual survival and local dispersal drive reinfestation by *Triatoma dimidiata* following insecticide application in Guatemala. Infect Genet Evol 74, 104000.
5. Keller, J.I., Lima-Cordon, R., Monroy, M.C., Schmoker, A.M., Zhang, F., Howard, A., Ballif, B.A., Stevens, L., 2019. Protein mass spectrometry detects multiple bloodmeals for enhanced Chagas disease vector ecology. Infect Genet Evol 74, 103998.
6. Peterson, J., K. Hashimoto, K. Yoshioka, P. Dorn, N. Gottdenker, A. Caranci, L. Stevens, C. Zúniga, A. Saldaña, S. Rodriguez, and C. Monroy. 2019. Chagas disease in Central America: recent findings and current challenges in vector ecology and control Current Tropical Medicine Reports 6 doi.org/10.1007/s40475-019-00175-0.
7. Lima-Cordon, R.A., M.C. Monroy, L. Stevens, A. Rodas, G.A. Rodas, P.L. Dorn, and S.A. Justi. 2019. Description of *Triatoma huehuetenanguensis* sp. n., a potential Chagas disease vector (Hemiptera, Reduviidae, Triatominae). Zookeys, 820: p. 51-70. DOI: 10.3897/zookeys.820.27258.
8. Orantes, L.C., C. Monroy, P.L. Dorn, L. Stevens, D.M. Rizzo, L. Morrissey, J.P. Hanley, A.G. Rodas, B. Richards, K.F. Wallin, and S. Helms Cahan. 2018. Uncovering vector, parasite, blood meal and microbiome patterns from mixed-DNA specimens of the Chagas disease vector *Triatoma dimidiata*. PLoS Negl Trop Dis. 12(10): p. e0006730. DOI: 10.1371/journal.pntd.0006730.
9. Lima-Cordon, R.A., L. Stevens, E. Solorzano Ortiz, G.A. Rodas, S. Castellanos, A. Rodas, V. Abrego, C. Zuniga Valeriano, and M.C. Monroy. 2018. Implementation science: Epidemiology and feeding profiles of the Chagas vector *Triatoma dimidiata* prior to Ecohealth intervention for three locations in Central America. PLoS Negl Trop Dis. 12(11): p. e0006952. DOI: 10.1371/journal.pntd.0006952.
10. Gallant, J.P., R.A. Lima-Cordon, S.A. Justi, M.C. Monroy, T. Viola, and L. Stevens. 2018. The role of natural selection in shaping genetic variation in a promising Chagas disease drug target: *Trypanosoma cruzi* trans-sialidase. Infect Genet Evol. 62: p. 151-159. DOI: 10.1016/j.meegid.2018.04.025.

11. Keller, J.I., J.O. Schmidt, A.M. Schmoker, B.A. Ballif, and L. Stevens. 2018. Protein mass spectrometry extends temporal blood meal detection over polymerase chain reaction in mouse-fed Chagas disease vectors. *Mem Inst Oswaldo Cruz*. 113(10): p. e180160. DOI: 10.1590/0074-02760180160.
12. Dorn, P.L., S.A. Justi, C. Dale, L. Stevens, C. Galvao, R. Lima-Cordon, and C. Monroy. 2018. Description of *Triatoma mopan* sp. n. from a cave in Belize (Hemiptera, Reduviidae, Triatominae). *Zookeys*. (775): p. 69-95. DOI: 10.3897/zookeys.775.22553.
13. Justi SA, Cahan S, Stevens L, Monroy C, Lima-Cordón R, Dorn PL. 2018. Vectors of diversity: Genome wide diversity across the geographic range of the Chagas disease vector *Triatoma dimidiata* sensu lato (Hemiptera: Reduviidae). *Mol Phylogenet Evol*. 120:144-150. doi: 10.1016/j.ympev.2017.12.016. Epub 2017 Dec 14. PMID: 29248626.
14. Keller JI, Ballif BA, St Clair RM, Vincent JJ, Monroy MC, Stevens L. 2017. Chagas disease vector blood meal sources identified by protein mass spectrometry. *PLoS One*. 12:e0189647. doi: 10.1371/journal.pone.0189647. PMID: 29232402; PMC5726658.
15. Dorn PL, McClure* AG, Gallaspy* MD, Waleckx E, Woods AS, Monroy MC, Stevens L. 2017. The diversity of the Chagas parasite, *Trypanosoma cruzi*, infecting the main Central American vector, *Triatoma dimidiata*, from Mexico to Colombia. *PLoS Negl Trop Dis*. 11(9):e0005878. doi: 10.1371/journal.pntd.0005878. eCollection 2017 Sep. PubMed PMID: 28957315; PubMed Central PMCID: PMC5619707.
16. Dorn, P. L., N. M. de la Rua, H. Axen, N. Smith*, B. R. Richards*, J. Charabati*, J. Suarez*, A. Woods, R. Pessoa*, C. Monroy, C. W. Kilpatrick, and L. Stevens. 2016. Hypothesis testing clarifies the systematics of the main Central American Chagas disease vector, *Triatoma dimidiata* (Latreille, 1811), across its geographic range. *Infection Genetics and Evolution* 44: 431-443.
17. Lodh, N., D. M. Rizzo, B. L. Kerans, S. McGinnis, N. Fytilis, and L. Stevens. 2015. If you've seen one worm, have you seen them all? Spatial, community, and genetic variability of tubificid communities in Montana. *Freshw Sci* 34: 909-917.
18. Stevens, L., M. C. Monroy, A. G. Rodas, ***R. M. Hicks, D. E. Lucero***, L. A. Lyons and P. L. Dorn. 2015. Migration and Gene Flow Among Domestic Populations of the Chagas Insect Vector *Triatoma dimidiata* (Hemiptera: Reduviidae) Detected by Microsatellite Loci.. *J Med Entomol* 52(3): 419-428.
19. de la Rua, N. M., D. M. Bustamante, M. Menes, L. Stevens, C. Monroy, C. W. Kilpatrick, D. Rizzo, S. A. Klotz, J. Schmidt, H. J. Axen and P. L. Dorn. 2014. Towards a phylogenetic approach to the composition of species complexes in the North and Central American *Triatoma*, vectors of Chagas disease.. *Infection Genetics and Evolution* 24: 157-166.
20. Klotz, S. A., J. O. Schmidt, P. L. Dorn, C. Ivanyi, ***K. R. Sullivan*** and L. Stevens. 2014. Free-roaming Kissing Bugs, Vectors of Chagas Disease, Feed Often on Humans in the Southwest.. *American Journal of Medicine* 127(5): 421-426.
21. Lucero, D. E., W. Ribera, J. C. Pizarro, C. Plaza, ***L. W. Gordon, R. Pena***, L. A. Morrissey, D. M. Rizzo and L. Stevens. 2014. Sources of Blood Meals of Sylvatic *Triatoma guasayana* near Zurima, Bolivia, Assayed with qPCR and 12S Cloning.. *Plos Neglected Tropical Diseases* 8(12).
22. Stevens, L., M. C. Monroy, A. G. Rodas and P. L. Dorn. 2014. Hunting, swimming, and worshipping: human cultural practices illuminate the blood meal sources of cave dwelling Chagas vectors (*Triatoma dimidiata*) in Guatemala and Belize.. *PLoS Negl Trop Dis* 8(9): e3047.

23. Fytilis, N., D. Rizzo, R. Lamb, B. L. Kerans and L. Stevens. 2013. Using real-time PCR and Bayesian analysis to distinguish susceptible tubificid taxa important in the transmission of *Myxobolus cerebralis*, the cause of salmonid whirling disease.. *International Journal for Parasitology* 43: 493-501.
24. Lucero, D. E., L. A. Morrissey, D. M. Rizzo, A. Rodas, R. Garnica, L. Stevens, D. M. Bustamante and M. C. Monroy. 2013. Ecohealth Interventions Limit Triatomine Reinfestation following Insecticide Spraying in La Brea, Guatemala.. *American Journal of Tropical Medicine and Hygiene* 88(4): 630-637.
25. Mathon, B., D. Rizzo, M. Klein, G. Alexander, S. Fiske, R. Langdon and L. Stevens. 2013. Assessing linkages in stream habitat, geomorphic condition, and biological integrity using a generalized regression neural network.. *Journal of the American Water Resources Association* 49: 415-430.
26. ***Richards, B., N. M. Rua***, C. Monroy, L. Stevens and P. L. Dorn. 2013. Novel polymerase chain reaction-restriction fragment length polymorphism assay to determine internal transcribed spacer-2 group in the Chagas disease vector, *Triatoma dimidiata* (Latreille, 1811).. *Mem Inst Oswaldo Cruz* 108(4): 395-398.
27. Stevens, L., D. M. Rizzo, D. E. Lucero and J. C. Pizarro. 2013. Household model of Chagas disease vectors (Hemiptera: Reduviidae) considering domestic, peridomestic, and sylvatic vector populations.. *J Med Entomol* 50(4): 907-915.
28. Dorn, P. L., M. E. Daigle, C. L. Combe, A. H. Tate, L. Stevens and K. M. Phillippi-Falkenstein. 2012. Low Prevalence of Chagas Parasite Infection in a Nonhuman Primate Colony in Louisiana.. *Journal of the American Association for Laboratory Animal Science* 51(4): 443-447.
29. Lodh, N., B. L. Kerans and L. Stevens. 2012. The Parasite that Causes Whirling Disease, *Myxobolus cerebralis*, is Genetically Variable Within and Across Spatial Scales.. *Journal of Eukaryotic Microbiology* 59(1): 80-87.
30. Stevens, L., P. L. Dorn, ***J. Hobson, N. M. de la Rua, D. E. Lucero***, J. H. Klotz, J. O. Schmidt and S. A. Klotz. 2012. Vector Blood Meals and Chagas Disease Transmission Potential, United States.. *Emerging Infectious Diseases* 18(4): 646-649.
31. ***de la Rua*, N.***, Stevens L., Dorn P.L. 2011. High genetic diversity in a single population of *Triatoma sanguisuga* (LeConte, 1855) inferred from two mitochondrial markers: Cytochrome b and 16S ribosomal DNA. *Infection Genetics and Evolution* 11: 671-7.
32. Stevens, L., Dorn P.L., Klotz J., Schmidt J., Lucero D., Klotz S.A. 2011. Kissing Bugs. The Vectors of Chagas. *Advances in Parasitology* 75: 169-92. doi:10.1016/B978-0-12-385863-4.00008-3
33. Lodh, N., Stevens L., Kerans B. 2011. Prevalence of *Myxobolus cerebralis* infections among genetic lineages of *Tubifex tubifex* at three locations in the Madison River, Montana. *Journal of Parasitology* 97: 531-4. doi:10.1645/GE-2497.1
34. Klotz, S.A., Stevens L., Dorn P.L., Schmidt J.O., Klotz J.H. 2011. The Kissing Bugs of the United States. In: Emporia State University, D.o.B.Press. *Kansas School Naturalist*. Emporia, KS.
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