

Brent L. Lockwood

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EDUCATION

2011 Ph.D., Biological Sciences, Stanford University
2002 B.S., Ecology, Behavior, and Evolution, University of California, San Diego
2002 B.A., Archaeological Anthropology, University of California, San Diego

PROFESSIONAL EXPERIENCE

2025 - now Chair of the Department of Biology, University of Vermont
2020 - now Associate Professor, Department of Biology, University of Vermont
2014 - 2020 Assistant Professor, Department of Biology, University of Vermont
2011 - 2014 National Institutes of Health Postdoctoral Fellow, Indiana University
2003 - 2005 Research Technician, Dept. Biopharm. Sci., UC San Francisco

GRANTS & FELLOWSHIPS

2022 - 2026 Australian Research Council, Discovery Project Grants, "Some like it hot: invasive species, hybridisation, and a warming world," C. Riginos (CI), C. Sherman (CI), N. Bierne (CI), R. Ellis (CI), **B.L. Lockwood** (CI), \$414,795 (direct)
2018 - 2025 National Science Foundation, CAREER: "Genomic, transcriptomic, and developmental drivers of thermal adaptation among natural populations of *Drosophila*," **B.L. Lockwood** (PI), \$1,054,119
2018 - 2022 National Science Foundation, RII Track-2 FEC: "From Genome to Phenome in a Stressful World: Epigenetic regulatory mechanisms mediating thermal plasticity in *Drosophila*," S.H. Cahan (PI), S. Fietze (Co-PI), N. Teets (Co-PI), H. Axen (Co-PI), J. Waters (Co-PI), **B.L. Lockwood** (Co-I), \$4,771,722
2017 - 2021 National Science Foundation, RII Track-2 FEC: "Using biophysical protein models to map genetic variation to phenotypes," F.M. Ytreberg (PI), C. Miller (Co-PI), D.M. Weinreich (Co-PI), **B.L. Lockwood** (Co-PI), \$6,000,000
2011 - 2014 National Institutes of Health, NRSA Postdoctoral Fellowship, \$143,670
2006 - 2009 National Science Foundation, Graduate Research Fellowship, \$121,500

PUBLICATIONS

Lockwood Lab trainees are underlined. DOI hyperlinked.

In Revision:

O'LearyTS, **Lockwood BL**. Modes of natural selection on maternal and zygotic gene expression in *Drosophila melanogaster* embryos. In revision for *Genetics*. Also available on bioRxiv: <https://doi.org/10.64898/2026.05.29.728885>

O'LearyTS, **Lockwood BL**. Heat stress drives opposing redox shifts in temperate versus tropical *Drosophila melanogaster* embryos. In revision for *Journal of Experimental Biology*. Also available on bioRxiv: <https://www.biorxiv.org/content/10.64898/2026.06.30.733001v1>

Peer-Reviewed Journal Articles:

O'LearyTS, MikuckiEE, TangwanchaoenS, Boyd JR, Helms Cahan S, Fietze S, **Lockwood BL**. Single-nuclei multiome sequencing reveals the molecular basis of thermal acclimation in *Drosophila melanogaster* embryos. In Press at *Development*. Also available on bioRxiv: <https://doi.org/10.1101/2025.01.08.631745>

Nunez, JCB, Tangwanchaoen S, Finnegan KM, Bufferd EM, King OC, Proud LA, **Lockwood BL**. 2026. Early life-stage thermal resilience is determined by climate-linked regulatory variation. *Proceedings of the National Academy of Sciences*. 123 (2) e2518358123. DOI: <https://doi.org/10.1073/pnas.2518358123>

Mikucki EE, Julick C, Buchanan JL, Montooth KL, **Lockwood BL**. 2025. Thermal effects on metabolic rate in diapausing *Pieris rapae* butterflies. *Current Research in Insect Science*. 7, 100111. DOI: <https://doi.org/10.1016/j.cris.2025.100111>

Mikucki EE, O'Leary TS, **Lockwood BL**. 2024. Heat tolerance, oxidative stress response tuning, and robust gene activation in early-stage *Drosophila melanogaster* embryos. *Proceedings of the Royal Society B*. 291, 20240973. DOI: <https://doi.org/10.1098/rspb.2024.0973>

Mikucki EE, **Lockwood BL**. 2021. Local thermal environment and warming influence supercooling and drive widespread shifts in the metabolome of diapausing *Pieris rapae* butterflies. *Journal of Experimental Biology* 224(22), jeb243118. DOI: <https://doi.org/10.1242/jeb.243118>

Lecheta MC, Awde DN, O'Leary T, Unfried LN, Jacobs NA, Whitlock MH, McCabe E, Powers B, Bora K, Waters JS, Axen HJ, Fietze S, **Lockwood BL**, Teets NM, Helms Cahan S. 2020. Integrating GWAS and transcriptomics to identify the molecular underpinnings of thermal stress responses in *Drosophila melanogaster*. *Frontiers in Genetics* 11, 658. DOI: <https://doi.org/10.3389/fgene.2020.00658>

Gupta T, Howe SE, Zorman ML, **Lockwood BL**. 2019. Aggression and discrimination among closely versus distantly related species of *Drosophila*. *Royal Society Open Science* 6, 190069. DOI: <https://doi.org/10.1098/rsos.190069>

Carra S, Alberti S, Benesch JLP, Boelens W, Buchner J, Carver JA, Cecconi C, Ecroyd H, Gusev N, Hightower LE, Klevit RE, Lee HO, Liberek K, **Lockwood B**, Poletti A, Timmerman V, Toth ME, Vierling E, Wu T, Tanguay RM. 2019. Small heat shock proteins: multifaceted proteins with important implications for life. *Cell Stress and Chaperones* 24(2), 295-308. DOI: <https://doi.org/10.1007/s12192-019-00979-z>

Lockwood BL, Gupta T, Scavotto R. 2018. Disparate patterns of thermal adaptation between life stages in temperate vs. tropical *Drosophila melanogaster*. *Journal of Evolutionary Biology* 31, 323-331. DOI: <https://doi.org/10.1111/jeb.13234>

Lockwood BL, Julick CR, Montooth KL. 2017. Maternal loading of a small heat shock protein increases embryo thermal tolerance in *Drosophila melanogaster*. *Journal of Experimental Biology* 220, 4492-4501. DOI: <https://doi.org/10.1242/jeb.164848>

German DP, Foti DM, Heras J, Amerkhanian H, and **Lockwood BL**. 2016. Elevated gene copy number does not always explain elevated amylase activities in fishes. *Physiological and Biochemical Zoology* 89, 277-293. DOI: <https://doi.org/10.1086/687288>

Lockwood BL, Connor KM, and Gracey AY. 2015. The environmentally tuned transcriptomes of *Mytilus* mussels. *Journal of Experimental Biology* 218, 1822-1833. DOI: <https://doi.org/10.1242/jeb.118190>

Lockwood BL and Somero GN. 2012. Functional determinants of temperature adaptation in enzymes of cold- vs. warm-adapted mussels (genus *Mytilus*). *Molecular Biology and Evolution* 29, 3061-3070. DOI: <https://doi.org/10.1093/molbev/mss111>

Lockwood BL and Somero GN. 2011. Invasive and native blue mussels (genus *Mytilus*) on the California coast: the role of physiology in a biological invasion. *Journal of Experimental Marine Biology and Ecology* 400, 167-174. DOI: <https://doi.org/10.1016/j.jembe.2011.02.022>

Lockwood BL and Somero GN. 2011. Transcriptomic responses to salinity stress in invasive and native blue mussels (genus: *Mytilus*). *Molecular Ecology* 20, 517-529. DOI: <https://doi.org/10.1111/j.1365-294X.2010.04973.x>

Lockwood BL, Sanders JG, and Somero GN. 2010. Transcriptomic responses to acute heat stress in invasive and native blue mussels (genus: *Mytilus*): molecular correlates of invasive success. *Journal of Experimental Biology* 213, 3548-3558. DOI: <https://doi.org/10.1242/jeb.046094>

Denny MW, **Lockwood BL**, and Somero GN. 2009. Can the giant snake predict palaeoclimate? *Nature* 460, E3-E4. DOI: <https://doi.org/10.1038/nature08224>

Peng J, Wagle M, Mueller T, Mathur P, **Lockwood BL**, Bretaud S, and Guo S. 2009. Ethanol-modulated camouflage response screen in zebrafish uncovers a novel role for cAMP and extracellular signal-regulated kinase signaling in behavioral sensitivity to ethanol. *Journal of Neuroscience* 29, 8408-8418. DOI: <https://doi.org/10.1523/JNEUROSCI.0714-09.2009>

Bretaud S, Li Q, **Lockwood BL**, Lau B, Lin E, and Guo S. 2007. A choice behavior for morphine reveals experience-dependent drug preference and underlying neural substrates in developing larval zebrafish. *Neuroscience* 146, 1109-1116. DOI: <https://doi.org/10.1016/j.neuroscience.2006.12.073>

Lockwood B, Bjerke S, Kobayashi K, and Guo S. 2004. Acute effects of alcohol on larval zebrafish: a genetic system for large-scale screening. *Pharmacology, Biochemistry and Behavior* 77, 647-654. DOI: <https://doi.org/10.1016/j.pbb.2004.01.003>

Books:

Somero GN, **Lockwood BL**, and Tomanek L. 2017. *Biochemical Adaptation: Response to Environmental Challenges from Life's Origins to the Anthropocene*. Sinauer Associates, Inc. Sunderland, MA.

TEACHING

Professor:

2025 - now	CAS 1720, Extraterrestrial Life, 3-credit interdisciplinary undergraduate course between faculty in Biology, Geosciences, English, and Philosophy
2020 - now	BIOL 4410, Physiology of Global Change, 4-credit CURE
2015 - 2024	BIOL 4405, Comparative Physiology, 4-credit undergraduate capstone
2021 - 2024	BIOL 1075, First-year Zoology Seminar, 1-credit undergraduate seminar
2015 - 2017	BIOL 225, Physiological Ecology, 3-credit undergraduate course
2017	BIOL 371B, Molecular Adaptation, 2-credit graduate seminar
2017	BIOL 295, Field Marine Biology, Hurricane Island, Maine, 4-credit undergraduate field research course

- 2016 BIOL 371A, Sensory Systems and Hormones, Co-Instructor with Dr. Rona Delay, 2-credit graduate seminar
- 2015 BIOL 296B, Investigations in Physiological Ecology, 1-credit undergraduate seminar

Guest Lecturer:

- 2019 - 2020 BIOL 199, Introduction to Marine Science, U Vermont

MENTORSHIP

Postdocs:

- 2020 - 2022 Emily Mikucki - Ecological genomics of fruit fly embryogenesis - now Faculty at U Vermont
- 2019 - 2021 Sumaetee Tangwanchaoen - Evolutionary genomics of fruit fly heat tolerance - now Faculty at Chulalongkorn University, Thailand
- 2016 - 2018 Tarun Gupta - Evolution of fruit fly aggression behavior, developmental physiology of heat stress - now a Senior Data Scientist at Bank of Montreal, Canada

Graduate Students:

- 2023 - now Gwen Ellis, Dissertation, Ecological genetics of amphibian disease
- 2023 - now Emily Dombrowski, Dissertation, Ecological genomics and physiology of Australian marine mussels
- 2019 - 2025 Thomas O'Leary, Dissertation, Ecological genomics and developmental physiology of fruit flies
- 2022 - 2024 Kylie Finnegan, Masters, Ecological genomics of fruit fly embryogenesis
- 2015 - 2020 Emily Mikucki, Dissertation, Ecological physiology and genomics of insects

Undergraduate Honors College Thesis and Independent Research:

- 2026 - now Ava Altman, Honors thesis, Host-microbe interactions
- 2024 - 2026 Olin King, Honors thesis, Genomics of heat tolerance
- 2023 - 2025 Eliza Bufferd, Honors thesis, Genomics of heat tolerance
- 2022 - 2023 Toni Nakatsugawa, Independent project, Trans-generational plasticity of heat tolerance
- 2021 Isha Chauhan, NSF summer intern, Adaptation of fruit fly heat tolerance
- 2021 Lauren Clark, NSF summer intern, Adaptation of fruit fly heat tolerance
- 2019 - 2021 Neel Patel, Honors thesis, Thermal plasticity of mitochondrial membranes
- 2019 - 2021 Shervin Razavi, Honors thesis, Computational analysis of enzyme structures
- 2019 - 2020 Gretchen Thompson, Honors thesis, Temperature adaptation of enzyme biochemistry
- 2018 - 2019 Ana Manuelian, Honors thesis, Effects of early-life trauma on performance
- 2018 - 2019 Caity DeCara, Independent project, Fruit fly cold tolerance
- 2017 - 2018 Jordyn Chace, Honors thesis, Environmental physiology of corals
- 2016 - 2017 Marlo Zorman, Independent project, Evolution of fruit fly aggression behavior
- 2015 - 2017 Sarah Howe, Independent project and post-grad technician, Fruit fly embryonic heat tolerance
- 2014 - 2016 Marissa Ng, Honors thesis, Thermal plasticity of aquatic mussels
- 2014 - 2016 Gurkiranjit Rattu, Honors thesis, Role of endoplasmic reticulum stress in asthma
- 2012 Nathan Byrd, Independent project, Indiana University
- 2009 Lauren Linsmayer, Honors thesis, Stanford University
- 2008 Rachel Friedman, Independent project, Stanford University
- 2007 Laura McDonald, Independent project, Stanford University

2007 Andrew Wicklund, Independent project, Stanford University

Undergraduate Research Assistants:

2022 - 2023 Aly Rodger, Research volunteer
2018 - 2019 Ona Ambrozaite, Research volunteer
2017 - 2018 Lily Keats, Research volunteer
2017 - 2018 Grace Seta, Research volunteer
2016 - 2016 Sandra Walser, Research volunteer

High School Student:

2013 Michael Bruner, Independent project, Indiana University

Graduate Student Committees:

2026 - now Chanchal Saratkar, Masters, Dept. of Biology U Vermont
2026 - now Sarah Stover, Dissertation, Dept. of Biology, U Vermont
2025 - now Kit Eller, Dissertation, Dept. of Biology, U Vermont
2022 - now Andrew McCracken, Dissertation, Dept. of Biology, U Vermont
2022 - 2024 Daniel Munteanu, Dissertation, Dept. of Biology, U Vermont
2022 - now Blair Christensen, Dissertation, Dept. of Plant and Soil Sciences, U Vermont
2022 Lauren Ashlock, Dissertation, Dept. of Biology, U Vermont
2021 - 2026 George Ni, Dissertation, Dept. of Biology, U Vermont
2020 - 2026 Alison Hall, Dissertation, Dept. of Biology, U Vermont
2020 - 2025 Csenge Petak, Dissertation, Dept. of Biology, U Vermont
2020 - now Benjamin Camber, Dissertation, Dept. of Biology, U Vermont
2020 - 2023 Helaina Stergas, Dissertation, Dept. of Biology, U Vermont
2019 - 2023 Erika Bueno, Dissertation, Dept. of Plant and Soil Sciences, U Vermont
2018 - 2020 Emily Shore, Masters, Dept. of Biology, U Vermont
2016 - 2018 Brendan Chandler, Masters, Dept. of Biology, U Vermont
2016 - 2020 April Garrett, Dissertation, Dept. of Biology, U Vermont
2016 - 2019 Ashley Waldron, Dissertation, Dept. of Biology, U Vermont
2014 - 2020 Trevor Gearhart, Dissertation, Dept. of Biology, U Vermont
2014 - 2022 Emily Price, Dissertation, Dept. of Biology, U Vermont
2014 - 2022 Ravi Nagori, Masters, Dept. of Biology, U Vermont
2014 - 2018 Chase Stratton, Dissertation, Dept. of Plant and Soil Sciences, U Vermont
2014 - 2017 Andrew Nguyen, Dissertation, Dept. of Biology, U Vermont

Undergraduate Student Committees:

2026 Amblen Isenhour, Honors thesis, Dept. of Neurology, U Vermont
2024 Aly Rodger, Honors thesis, Dept. of Biology, U Vermont
2023 Olivia Budington, Honors thesis, Dept. of Molecular Physiology and Biophysics, U Vermont
2023 Eamonn Heney, Honors thesis, Dept. of Biomedical and Health Sciences, U Vermont
2023 Marlana Winschel, Honors thesis, Dept. of Surgery, U Vermont
2021 Jessica Wright, Honors thesis, Dept. of Biology, U Vermont
2021 Andrew Stoloff, Honors thesis, Dept. of Biology, U Vermont
2021 Anneke LaPosta, Honors thesis, Dept. of Biology, U Vermont
2020 Jhanavi Kapadia, Honors thesis, Dept. of Biology, U Vermont
2020 Chelsea Darwin, Honors thesis, Dept. of Biology, U Vermont
2018 Julia Cline, Honors thesis, Dept. of Biology, U Vermont
2016 - 2017 Amanda Rasming-Lund, Honors thesis, Rubenstein, U Vermont
2016 Elizabeth White, Honors thesis, Dept. Biology, U Vermont

HONORS & AWARDS

2021	University of Vermont, College of Arts and Sciences Grant for Inclusive Excellence Curricular Development, \$1,000
2010	Jane Miller Scholars Award, \$1000
2010	Best Poster, Runner-up, American Physiological Society Intersociety Meeting
2009	Friends of Hopkins Scholar Award, \$1000
2008	Dr. Earl H. and Ethel M. Myers Oceanographic and Marine Biology Trust, \$2000
2006	Stanford University Excellence in Teaching Award
1997 - 2001	National Alliance for Scholastic Achievement Award, \$15,000

UNIVERSITY & PROFESSIONAL SERVICE

2026 - now	Member of the Genetics Society of America Equity and Inclusion Committee
2026 - now	Member of the Editorial Board at <i>Current Research in Insect Science</i>
2025 - now	Chair of the Department of Biology, U Vermont
2025 - 2026	Member HHMI "Ripples of Change" Community of Practice for Chairs, U Vermont
2014 - now	Member of the Graduate College, U Vermont
2022 - 2025	Member of the Faculty Senate, U Vermont
2025 - 2025	Member of the College of Arts and Sciences Faculty Standards Committee
2024 - 2025	Chair of Faculty Affairs Committee, Department of Biology, U Vermont
2023	Chair of Dept. of Biology faculty search committee
2022	College of Arts and Sciences Diversity Equity and Inclusion Strategic Planning Committee
2022 - 2024	Academic Affairs Committee Co-Chair, Department of Biology, U Vermont
2021	Organizer of faculty workshop on Anti-racism featuring Dr. Brandon Ogbunu of Yale Univ., U Vermont
2020	Department of Biology Chair Five-year Review Committee, U Vermont
2019	Dept. of Biology tenure-track faculty search committee member
2018 - 2021	Academic Affairs Committee Chair, Department of Biology, U Vermont
2018 - 2019	Department of Chemistry Chair Five-year Review Committee, U Vermont
2018 - 2019	College of Arts and Sciences Honors Committee, University of Vermont
2015 - 2018	Academic Affairs Committee member, Department of Biology, U Vermont
2007 - 2008	Elected officer, Hopkins Marine Station Graduate Student Organization. Stanford University.
2000	Co-organizer for the 20th International Conference on Science and Social Responsibility. Student Pugwash USA. San Diego, CA.

Society Memberships:

Society for Integrative and Comparative Biology, Genetics Society of America, Society for the Study of Evolution, European Society for Evolutionary Biology, Society of Experimental Biology

Peer Reviewer:

Proceedings of the National Academy of Sciences USA, PLoS Biology, Ecology, Proceedings of the Royal Society B, Global Change Biology, Molecular Biology and Evolution, Evolutionary Applications, Molecular Ecology, Journal of Experimental Biology, Genome Biology and Evolution, PLoS One, Marine Biology, Comparative Physiology and Biochemistry, Cells Stress and Chaperones, International Journal of Molecular Sciences, Biological Invasions, Behavioural Brain Research

SEMINARS & PRESENTATIONS

Invited:

- 2026 **Lockwood BL.** "Adaptive developmental physiology: How embryos survive in a variable environment." Departmental Seminar, Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara.
- 2024 **Lockwood BL.** "Adaptive developmental physiology: How embryos survive in a variable environment." Departmental Seminar, Department of Biology, Pomona College, California.
- 2024 **Lockwood BL.** "Developmental physiological insights into how embryos survive in a variable environment." Departmental Seminar, Marine Ecology Group, GEOMAR Helmholtz Centre for Ocean Research, Kiel, Germany.
- 2023 **Lockwood BL, T O'Leary, E Mikucki, S Tangwanchaoen, S Helms Cahan, and S Fietze.** "Single-nuclei multiome ATAC and RNA sequencing reveals the molecular basis of thermal acclimation in *Drosophila melanogaster* embryos." Symposium on Epigenetics, Entomological Society of America, National Harbor, Maryland.
- 2022 **Lockwood BL.** "Genetic and physiological mechanisms of response to environmental change." Departmental Seminar, School of Biological Sciences, University of Queensland, Australia.
- 2019 **Lockwood BL.** "Genetic and physiological mechanisms of response to environmental change." Departmental Seminar, Department of Biology, Western University of Ontario, Canada.
- 2019 **Lockwood BL.** "Integrating genetics and physiology to gain insights into species responses to environmental change." Marvin Seminar, Department of Plant Biology, University of Vermont.
- 2018 **Lockwood BL.** "Integrating genetics and physiology to gain insights into species responses to environmental change." Departmental seminar, Biology Department, Boston College.
- 2018 **Lockwood BL.** "Integrating genetics and physiology to gain insights into species responses to environmental change." Departmental seminar, School of Marine Sciences, University of Maine.
- 2018 **Lockwood BL.** "Small heat shock proteins in ectotherms: response to environmental challenges across generations and through evolutionary time." Cell Stress Society International Workshop on Small Heat Shock Proteins, Quebec City, Canada.
- 2014 **Lockwood BL.** "Unity in diversity: What can we learn from transcriptomics studies in *Mytilus* mussels?" Symposium on Biochemical Adaptation, Hopkins Marine Station, Stanford University.
- 2014 **Lockwood BL.** "Mechanisms of temperature adaptation in the sea and on land." Departmental seminar, Dept. of Biology, University of Vermont.
- 2013 **Lockwood BL.** "Mechanisms of temperature adaptation in the sea and on land." Departmental seminar, Dept. of Biology, Sewanee, The University of the South.
- 2013 **Lockwood BL.** "Mechanisms of temperature adaptation in the sea and on land." Departmental seminar, Dept. of Biology, Sonoma State University.
- 2010 **Lockwood BL.** "Molecular physiological determinants of biogeography in invasive vs. native mussel species." Dept. of Systems Biology, Harvard Medical School.

Contributed:

- 2026 O'Leary TS, **Lockwood BL.** "Modes of natural selection on maternal and zygotic gene expression in *Drosophila melanogaster* embryos." Population, Evolutionary, and Quantitative Genetics Conference, Genetics Society of America, Pacific Grove, CA.

- 2024 **Lockwood BL**, T O'Leary, E Mikucki, S Tangwanchaoen, S Helms Cahan, and S Fietze. "Single-nuclei multiome ATAC and RNA sequencing reveals the molecular basis of thermal acclimation in *Drosophila melanogaster* embryos." Society for Experimental Biology Annual Meeting, Prague, Czech Republic.
- 2024 Finnegan K, **Lockwood BL**. "Gene regulatory targets of selection for enhanced heat tolerance in *Drosophila melanogaster* embryos." Allied Genetics Conference, Genetics Society of America, National Harbor, MD.
- 2022 Tangwanchaoen S, **Lockwood BL**. "The quantitative genetic basis of tolerance to environmental change during early embryogenesis in *Drosophila melanogaster*." Population, Evolutionary, and Quantitative Genetics Conference, Genetics Society of America, Pacific Grove, CA.
- 2020 Awde DN, Lecheta MC, Unfried LN, Jacobs NA, Powers B, Bora K, Waters JS, Axen HJ, Fietze SE, **Lockwood BL**, Helms Cahan S, Teets NM. "Genetic mechanisms of basal thermal tolerance in *Drosophila melanogaster*," Society for Integrative and Comparative Biology Annual Meeting, Austin, TX.
- 2020 Helms Cahan S, Fietze SE, Gerrard DL, Bora K, Kaplan I, Perez M, **Lockwood BL**, Teets NM, Waters JK, Axen HJ. "Developmental temperature alters brain gene expression in adult *Drosophila melanogaster*," Society for Integrative and Comparative Biology Annual Meeting, Austin, TX.
- 2020 Mikucki EE, Buchanan J, Julick CR, Montooth KL, and **Lockwood BL**. "The effects of winter warming stress on metabolic activity in diapausing *Pieris rapae* butterflies," Society for Integrative and Comparative Biology Annual Meeting, Austin, TX.
- 2019 Mikucki EE and **Lockwood BL**. "Winter warming threatens cold tolerance and survival in diapausing *Pieris rapae* butterflies," Society for Integrative and Comparative Biology Annual Meeting, Tampa, FL.
- 2018 Gupta T, Howe SE, Zorman ML, **Lockwood BL**. "Aggression among *Drosophila* species is driven by reproductive competition." Annual *Drosophila* Research Conference, Genetics Society of America, Philadelphia, PA.
- 2018 **Lockwood BL**, Gupta T, and Scavotto R. "Disparate patterns of thermal adaptation between life stages in temperate vs. tropical *Drosophila melanogaster*." Society for Integrative and Comparative Biology Annual Meeting.
- 2017 **Lockwood BL** and Gupta T. "Molecular targets of thermal stress during early development in *Drosophila melanogaster*." Society for Integrative and Comparative Biology Annual Meeting.
- 2016 **Lockwood BL** and Scavotto R. "Natural variation in embryonic thermal tolerance among populations of *Drosophila melanogaster* along a thermal gradient." Society for Integrative and Comparative Biology Annual Meeting.
- 2014 **Lockwood BL** and Montooth KL. "Heat stress disrupts key events in early embryonic development." Annual *Drosophila* Research Conference, Genetics Society of America, San Diego, CA.
- 2014 **Lockwood BL** and Montooth KL. "The consequences of thermal stress on early embryonic development: from cells to the whole-organism." Society for Integrative and Comparative Biology Annual Meeting.
- 2013 **Lockwood BL** and Montooth KL. "The effects of thermal stress on embryonic development: from cellular defects to whole-organism survival." Annual *Drosophila* Research Conference, Genetics Society of America, Washington, D.C.
- 2013 **Lockwood BL** and Montooth KL. "Coping with stress: the cellular maintenance of embryonic development." Society for Integrative and Comparative Biology Annual Meeting.

- 2011 **Lockwood BL** and Somero GN. "Temperature adaptation of orthologous enzymes correlates with biogeographic distributions of invasive vs. native marine mussels (genus *Mytilus*) on the California coast." Evolution Annual Meeting.
- 2010 **Lockwood BL** and Somero GN. "Effects of acute temperature and salinity stresses on the transcriptomes of invasive and native mussel species (genus *Mytilus*)." American Physiological Society Intersociety Meeting: Global Change and Global Science Comparative Physiology in a Changing World. Best Poster Runner-up
- 2010 **Lockwood BL**, Sanders JG, and Somero GN. "Transcriptomic responses to heat-stress reveal the molecular basis for the success of invasive mussels." Society for Integrative and Comparative Biology Annual Meeting.
- 2009 **Lockwood BL** and Somero GN. "Differences in transcriptomic responses to heat-stress in native and invasive blue mussels (genus: *Mytilus*): molecular correlates of invasive success." Western Society of Naturalists Annual Meeting.
- 2007 **Lockwood BL** and Somero GN. "Enzyme activities of the blue mussels, *Mytilus trossulus* and *M. galloprovincialis*, indicate differential temperature adaptation." Partnership for Interdisciplinary Studies of Coastal Oceans Scientific Symposium.
- 2007 **Lockwood BL** and Somero GN. "Enzyme activities of the blue mussels, *Mytilus trossulus* and *M. galloprovincialis*, indicate differential temperature adaptation." Western Society of Naturalists Annual Meeting.
- 2007 **Lockwood BL** and Somero GN. "PAML identifies amino acid sites that are critical for temperature adaptation in orthologous enzymes." Society for Molecular Biology and Evolution Annual Meeting.
- 2006 **Lockwood BL** and Somero GN. "Temperature adaptation in cytosolic malate dehydrogenase (cMDH) in blue mussels." Western Society of Naturalists Annual Meeting.
- 2003 **Lockwood B**, Bjerke S, Kobayashi K, and Guo S. "Acute effects of alcohol on larval zebrafish: a genetic system for large-scale screening." West-Coast Regional Zebrafish Conference.
- 2002 **Lockwood BL**. "Sex-ratio evolution in a population of dark-eyed juncos (*Junco hyemalis thurberi*) at UC San Diego." Undergraduate Research Symposium, University of California, San Diego.