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Associate Professor
Department of Biological Sciences
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EDUCATION

Doctorate of Philosophy in Ecology and Evolution, August 2012.

Department of Ecology and Evolution
Stony Brook University, Stony Brook, NY.
Dissertation: *Speciation, ecological divergence, and phylogeny in plethodontid salamanders*
Advisor: Dr. John J. Wiens.

Bachelor of Science in Biology; Minor: Internet Studies, May 2005.

Brandeis University, Waltham, MA.
Advisor: Dr. Dan L. Perlman.

PROFESSIONAL EXPERIENCE

Associate Professor of Biological Sciences, September 2020 – present.

Department of Biological Sciences
Bridgewater State University, Bridgewater, MA.

Assistant Professor of Biological Sciences, September 2014 – August 2020.

Department of Biological Sciences
Bridgewater State University, Bridgewater, MA.

Adjunct Lecturer of Field Herpetology, June 2014 – July 2014.

Mountain Lake Biological Station, Pembroke, VA
University of Virginia, Charlottesville, VA.

Visiting Lecturer of Ecology and Evolutionary Biology, August 2012 – May 2014.

Department of Biology
University of Richmond, Richmond, VA.

TEACHING INTERESTS

evolution, Darwinian medicine, molecular ecology, ecology, animal behavior, conservation genetics, field biology, herpetology, and ichthyology.

RESEARCH INTERESTS

population ecology, population genetics, speciation, phylogenetics, animal behavior, responses to climate change.

TEACHING EXPERIENCE

Instructor, Bridgewater State University, Department of Biological Sciences

BIOE 515: *Advanced Topics in Ecology: Evolution: The Unifying Concept of Biology*. Summer 2018.

BIOL 123: *Becoming a Biologist*. Spring 2020.

BIOL 199: *Seeing the Forest for the Trees*. Fall 2017.

BIOL 225: *General Ecology (with lab)*. Fall semesters, 2014 – present (except Fall 2020, on sabbatical).

BIOL 329L: *Winter Ecology Lab*. January Intersession 2018, 2020.

BIOL 340: *Darwinian Medicine*. Fall 2016, 2019; Spring 2018, 2019.

BIOL 372: *Behavioral Ecology*. Fall 2017.

BIOL 396: *Research Problems in Biology*. Spring semesters, 2015 – present; Summer Session I, 2015 – 2019; Fall semesters, 2016 – present.

BIOL 422: *Biological Evolution*. Spring semesters, 2015 – present; Summer Session II, 2020.

BIOL 424: *Molecular Ecology (with lab)*. Spring semesters, 2015 – 2017.

BIOL 485: *Honors Thesis*. Fall 2016; Spring 2017; Fall 2018; Spring 2021.

BIOL 497: *Undergraduate Biological Research*. Fall 2015.

Details of additional teaching experience at University of Virginia (2014), University of Richmond (2012-2014), and Stony Brook University (2006-2012) are available upon request.

PEER-REVIEWED PUBLICATIONS (* indicates undergraduate co-author)

Cove, M. V., R. Kays, H. Bontrager...**M. C. Fisher-Reid**, S. M. King*, A. J. Bebeko*...et al. (150 authors total). *in review*. Snapshot USA 2019: the first coordinated national camera trap survey of the United States. *Ecology*.

Bloch, C. P., K. D. Curry, **M. C. Fisher-Reid**, and T. D. Surasinghe. 2019. Population Decline of the Invasive Asian Shore Crab (*Hemigrapsus sanguineus*) and Dynamics of Associated Intertidal Invertebrates on Cape Cod, Massachusetts. *Northeastern Naturalist* 26:772–784.

Lambert, S. M., J. W. Streicher, **M. C. Fisher-Reid**, F. R. Méndez-de la Cruz, N. Martínez-Méndez, U. O. García Vázquez, A. Nieto Montes de Oca, and J. J. Wiens. 2019. Inferring introgression using RADseq and D_{FOIL} : power and pitfalls revealed in a case study of spiny lizards (*Sceloporus*). *Molecular Ecology Resources* 19:818–837.

Fisher-Reid, M. C. and J. J. Wiens. 2015. Is geographic variation within species related to macroevolutionary patterns between species? *Journal of Evolutionary Biology* 28:1502–1515.

Cahill, A. E., M. E. Aiello-Lammens (the first two authors contributed equally), **M. C. Fisher-Reid**, X. Hua, C. Karanewsky, H. Y. Ryu, G. Sbeglia, F. Spagnolo, J. Waldron, and J. J. Wiens. 2014. Causes of warm-edge range limits: systematic review, proximate factors, and implications for climate change. *Journal of Biogeography* 41: 429–442.

Fisher-Reid, M. C., T. N. Engstrom, C. A. Kuczynski, P. R. Stephens, and J. J. Wiens. 2013. Parapatric divergence of sympatric morphs in a salamander: incipient speciation on Long Island? *Molecular Ecology* 22:4681–4694.

Cahill, A. E., M. E. Aiello-Lammens (the first two authors contributed equally), **M. C. Fisher-Reid**, X. Hua, C. Karanewsky, H. Y. Ryu, G. Sbeglia, F. Spagnolo, J. Waldron, O. Warsi, and J. J. Wiens. 2013. How does climate change cause extinction? *Proceedings of the Royal Society of London B* 280: 20121890.

Cover article, picked up by many general news outlets (including The Guardian (UK), Daily Mail (UK), MSN News (UK), YahooNews (UK), Business Insider), science news websites (including ScienceDaily, physorg, Royal Society Website, EarthTimes, and SciTechDaily), and climate change and environmental websites and blogs.

Fisher-Reid, M. C., K. H. Kozak, and J. J. Wiens. 2012. How is the rate of climatic-niche evolution related to climatic-niche breadth? *Evolution* 66:3836–3851.

Fisher-Reid, M. C., and J. J. Wiens. 2011. What are the consequences of combining nuclear and mitochondrial data for phylogenetic analysis? Lessons from *Plethodon* salamanders and 13 other vertebrate clades. *BMC Evolutionary Biology* 11:300.

Published 10/13/11, listed as **Highly Accessed** on 10/27/11

OTHER PUBLICATIONS (* indicates undergraduate co-author)

Jahoda, J. C., K. D. Curry, C. P. Bloch, and **M. C. Fisher-Reid**. 2020. [A Case Study Approach to Ecology Field Studies](#). 6th Ed. Dubuque: Kendall Hunt Publishing Company.

MCFR took the lead on revisions and contributed new chapter

Fisher-Reid, M. C. 2017. One species, two species, red species, lead species? Phylogenetics and species concepts with *Plethodon* salamanders. SPARCnet: Educational Resources, QUBES Educational Resources. doi:10.25334/Q4N66K;
<https://qubeshub.org/qubesresources/publications/189/1>

Warwick, A., L. Mead, **M.C. Fisher-Reid**, E. Grant, C. Sutherland, A. Wills*, and E. Perry*. 2018. Claymander Field Experiment. SPARCnet: Educational Resources, QUBES Educational Resources. doi:10.25334/Q46Q4Z;
<https://qubeshub.org/qubesresources/publications/372/1>

Jahoda, J. C., K. D. Curry, C. P. Bloch, and **M. C. Fisher-Reid**. 2016. [A Case Study Approach to Ecology Field Studies](#). 5th Ed. Dubuque: Kendall Hunt Publishing Company.

Fisher-Reid, M. C. 2016. Book Review: Genetics for everyone. *Bridgewater Review* 35(2):35-36.

CONFERENCE PRESENTATIONS (* indicates undergraduate co-author; † indicates presenter)

Grayson, K. L.†, **M. C. Fisher-Reid**, L. S. Mead, H. Coovert, R. Hernández Pacheco, J. Sevin, A. Warwick, T. Matlaga, S. Sterrett, C. Sutherland, J. Fleming, D. Muñoz, D. A. W. Miller,

and E. H. Campbell Grant. Research and Teaching Opportunities with a Large-scale Salamander Collaboration Network (SPARCnet). Contributed poster presentation. The Wildlife Society Annual Meeting. 2020. Virtual.

Fisher-Reid, M.C.[†] SPARCnet @ BSU. Contributed oral presentation. SPARCnet Annual Meeting. 2020. Virtual.

Fisher-Reid, M.C.[†], E. Babicz*, A. Bebko*, S. Couto*, S. King*, A. O’Roak*, E. Perry*, J. Whalen*. SPARCnet Year 2.5: Mark-recapture reveals variation in abundance of *Plethodon cinereus* within a suburban forest. Contributed poster presentation. Evolution. 2019. Providence, RI.

Evans, A.[†], E. Jockusch, M.C. Urban, B. Forester, **M.C. Fisher-Reid**, and B. Cosentino. Can land use buffer the evolutionary response of terrestrial salamanders to climate change? Contributed oral presentation. Evolution Meetings. 2019. Providence, RI.

Babicz, E.*[†], A. O’Roak*[†], S. Couto*, E. Perry*, J. Whalen*, and **M.C. Fisher-Reid**. SPARCnet Year 2: Mark-recapture reveals variation in abundance of *Plethodon cinereus* within a suburban forest. Contributed poster presentation. Northeast Natural History Conference. 2019. Springfield, MA.

Whalen, J.*[†], H. Marella, and **M.C. Fisher-Reid**. Preliminary Results of a Common Garden Experiment with *Asclepias syriaca* (Common Milkweed). Contributed poster presentation. Northeast Natural History Conference. 2019. Springfield, MA.

Babicz, E.*[†] and **M.C. Fisher-Reid**. SPARCnet Year 1.5: Preliminary Results of a Long-Term Mark-Recapture Study on *Plethodon cinereus* in Bridgewater, MA. Contributed poster presentation. Northeast Partners in Amphibians and Reptile Conservation Annual Meeting. 2018. Amherst, MA.

Evans, A.[†], E. Jockusch, M.C. Urban, B. Forester, **M.C. Fisher-Reid**, J. Gibbs, and B. Cosentino. Does land use buffer the evolutionary responses of a polymorphic salamander to climate change? Contributed oral presentation. Joint Meetings of Ichthyology and Herpetology. 2018. Rochester, NY.

Evans, A.[†], E. Jockusch, M.C. Urban, B. Forester, **M.C. Fisher-Reid**, J. Gibbs, and B. Cosentino. Does land use buffer the evolutionary responses of a polymorphic salamander to climate change? Contributed oral presentation. Northeast Partners in Amphibian and Reptile Conservation Annual Meeting. 2018. Amherst, MA.

Couto, S.*[†], E. Babicz*[†], and **M.C. Fisher-Reid**. SPARCnet Year 1: Preliminary Results of a Long-Term Mark-Recapture Study on *Plethodon cinereus* in Bridgewater, MA. Contributed poster presentation. Northeast Natural History Conference. 2018. Burlington, VT.

- Perry, E.*† and **M.C. Fisher-Reid**. Predation on the Eastern Red-Backed Salamander. Contributed poster presentation. Northeast Natural History Conference. 2018. Burlington, VT.
- Fossella, M. *† and **M. C. Fisher-Reid**. Distribution of *Plethodon cinereus* color morphs in New England: 40 years later. Contributed oral presentation. Northeast Natural History Conference. 2017. Cromwell, CT.
- Tucker, M.*† and **M. C. Fisher-Reid**. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. Contributed oral presentation. Northeast Natural History Conference. 2017. Cromwell, CT.
- Back, A.*† M. Fossella,* and **M. C. Fisher-Reid**. Distribution of *Plethodon cinereus* color morphs in Massachusetts: 40 years later. Contributed poster presentation. Northeast Partners in Amphibians and Reptile Conservation Annual Meeting. 2016. Poultney, VT.
- Pierce, N.,*† M. Tucker,*† and **M. C. Fisher-Reid**. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. Contributed poster presentation. Northeast Partners in Amphibians and Reptile Conservation Annual Meeting. 2016. Poultney, VT.
- Pierce, N.,*† A. Back,*† M. Fossella,*† M. Tucker,*† and **M. C. Fisher-Reid**. Preliminary monitoring of terrestrial amphibians in southeastern Massachusetts. Contributed poster presentation. Northeast Natural History Conference. 2016. Springfield, MA.
- Ribeiro, R.*† and **M. C. Fisher-Reid**. Are terrestrial salamanders impacted by soil salinity? A pilot study. Contributed poster presentation. Northeast Natural History Conference. 2016. Springfield, MA.
- Fisher-Reid, M. C.**† and J. J. Wiens. How is geographic variation within species related to macroevolutionary patterns between species? Contributed oral presentation. Evolution. 2014. Raleigh, NC.
- Fisher-Reid, M. C.**†, T. N. Engstrom, C. A. Kuczynski, P. R. Stephens, and J. J. Wiens. Parapatric divergence of sympatric morphs in a salamander: incipient speciation on Long Island? Contributed oral presentation. 1st Joint Congress on Evolutionary Biology. 2012. Ottawa, ON, Canada.
- Fisher-Reid, M. C.**† and J. J. Wiens. A multi-locus phylogeny of genus *Plethodon* (Caudata: Plethodontidae). Contributed oral presentation. Joint Meeting of Ichthyologists and Herpetologists. 2010. Providence, RI.

INVITED TALKS and DISCUSSION PANELS

Stony Brook University. Discussion Panel: New student orientation teaching assistant workshop. August 2010.

University of Richmond. Research Seminar. Department of Biology. March 2012.

Emory University. Research Seminar. Department of Biology. May 2012.

University of Virginia. Research Seminar. Mountain Lake Biological Station. June 2013.
Bridgewater State University. Research Seminars. Department of Biological Sciences.
December 2013; October 2014.
Bridgewater State University. Outreach Seminar. Department of Biological Sciences.
February 2015.
Northeast Natural History Conference. Discussion Panel: Publishing your work. April 2016.
University of New Hampshire. Research Seminar. Department of Biological Sciences. March
2017.
Bridgewater State University. Discussion Panel: Scientists in Society. April 2017.
Bridgewater State University. Research Seminar. Center for the Advancement of Research
and Scholarship, April 2017.
Bridgewater State University. Keynote Address. Greenlight4girls. April 2017.
Bridgewater State University. Discussion Panel: Animal Research at BSU. Center for the
Advancement of Research and Scholarship May Celebration. May 2017.
Michigan State University. Teaching Seminar. Avida-ED Workshop. July 2017.
Plimoth Plantation. Research Seminar. Lunch and Learn Lecture Series. August 2017.
Pennsylvania State University. Research Seminar. SPARCnet Annual Meeting. July 2018.
Bridgewater State University. Outreach Seminar. Darwin Day @ BSU. February 2019,
February 2020.

MENTORING

27 undergraduate research students mentored at Bridgewater State University

Darlene Andrade Fonseca – 9/2020 – present. Co-mentored by Dr. Heather Marella.
Elena Babicz – 1/2017 – 5/2020. Funded by ATP Semester Group Grants for supplies \$525
(Spring 2017; Spring 2020) and \$350 (Summer 2017). Funded by ATP Semester Individual
Grant for supplies \$300 per semester (Fall 2017; Spring 2018; Fall 2018; Spring 2019; Fall
2019). Funded by ATP Summer Grant of \$4000 + \$500 for supplies (Summer 2018).
Funded by NSF REU Program at the American Museum of Natural History (Summer
2019).
Anna Back – 5/2015 – 8/2016. Funded by ATP Semester Individual Grant for supplies per
semester \$300 (Fall 2015; Spring 2016). Funded by ATP Summer Grant of \$4000 + \$325
for supplies (Summer 2016).
Alexandra Bebko – 1/2019 – present. Funded by ATP Semester Individual Grant for supplies
\$300 per semester (Spring 2019, Fall 2019). Funded by ATP Semester Group Grant for
supplies \$525 (Spring 2020).
Alexandrea Carreiro – 1/2015 – 6/2015. Funded by ATP Individual Semester Grant for
supplies \$300 per semester (Spring 2015).
Sarah Couto – 5/2016 – 5/2018. Funded by ATP Semester Individual Grant for supplies \$300
per semester (Fall 2016; Fall 2017; Spring 2018). Funded by ATP Semester Group Grant
for supplies \$525 (Spring 2017).
Mariah Fossella – 1/2015 – 5/2018. Funded by ATP Semester Individual Grant for supplies
\$300 per semester (Spring 2015; Fall 2015; Fall 2016; Fall 2017; Spring 2018). Funded by
ATP Summer Grant of \$4000 + \$325 for supplies (Summer 2016).
Alexandra Gay – 5/2018 – 6/2018.
Janea Gomes-Pires – 9/2019 – 12/2019. Co-mentored by Dr. Melinda LeBranche.
Charles Graziano – 9/2020 – present

- Nicholas Hathaway* – 1/2016 – 5/2016. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Spring 2016). Co-mentored by Dr. Christopher Bloch.
- Emma Jaffe* – 1/2018 – 5/2018. Co-mentored by Dr. Melinda LeBranche.
- Sean King* – 1/2019 – present. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Spring 2019; Fall 2019). Funded by ATP Semester Group Grant for supplies \$350 (Summer 2019; Spring 2020). Funded by ATP Summer Group Grant of \$4500 + \$325 for supplies (Summer 2020).
- Alexander O’Roak* – 5/2018 – present. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Fall 2018, Spring 2019). Funded by ATP Summer Grant of \$4500 + \$500 for supplies (Summer 2019).
- Emma Perry* – 9/2016 – present. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Fall 2016; Fall 2017; Spring 2018). Funded by ATP Semester Group Grant for supplies \$525 (Spring 2017) and \$350 (Summer 2017).
- Nathan Pierce* – 1/2015 – 12/2016. Funded by ATP Semester Individual Grant for supplies \$300 (Spring 2015, Fall 2015, Spring 2016, Fall 2016). Funded by ATP Summer Grant of \$4000 + \$325 for supplies (Summer 2016).
- Drew Rezendes* – 1/2020 – present. Funded by ATP Semester Group Grant for supplies \$350 (Spring 2020). Funded by ATP Summer Group Grant of \$4500 + \$325 for supplies (Summer 2020).
- William Riendeau* – 9/2019 – present. Funded by ATP Semester Group Grant for supplies \$350 per semester (Fall 2019; Spring 2020). Co-mentored by Dr. Heather Marella
- Rayssa Ribeiro* – 5/2015 – 5/2016. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Fall 2015, Spring 2016).
- Mia Sarkisian* – 1/2018 – 5/2018. Funded by ATP Summer Grant of \$4000 + \$500 for supplies (Summer 2018). Co-mentored by Dr. Ellen Ingmanson.
- Madisen Semple* – 1/2019 – 5/2019. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Spring 2019). Co-mentored by Dr. Melinda LeBranche.
- Allison Slaney* – 1/2020 – 5/2020. Co-mentored by Dr. Melinda LeBranche.
- Alyssa St John* – 1/2020 – present. Funded by ATP Semester Group Grant for supplies \$525 (Spring 2020). Funded by ATP Summer Grant of \$4500 + \$500 for supplies (Summer 2020).
- Erika Tierney* – 1/2020 – 5/2020. Co-mentored by Dr. Melinda LeBranche.
- Matthew Tucker* – 9/2015 – 12/2017. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Fall 2015, Spring 2016, Fall 2016; Fall 2017). Funded by ATP Summer Grant of \$4000 + \$325 for supplies (Summer 2016).
- Anne Marie Vasapollo* – 5/2019 – present. Funded by ATP Semester Group Grant for supplies \$350 per semester (Summer 2019; Fall 2019; Spring 2020). Co-mentored by Dr. Heather Marella
- Julia Whalen* – 1/2018 – 12/2019. Funded by ATP Semester Individual Grant for supplies \$300 per semester (Spring 2018, Summer 2018, Fall 2018, Spring 2019, Summer 2019).
- An additional 20 undergraduate research students were mentored at Stony Brook University in field and molecular laboratory work. Four of these received 3-6 credits, while the remaining 16 were volunteers between 2009-2011.*

Mentor for undergraduate honors thesis, Bridgewater State University

2017. *Mariah Fossella*. Distribution of *Plethodon cinereus* color morphs in New England: 40 years later. Committee: Dr. Kenneth Adams and Dr. Christopher Bloch.
2017. *Matthew Tucker*. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. Committee: Dr. Christopher Bloch and Dr. Jonathan Roling.
2018. *Emma Perry*. Using clay models to measure seasonal predation on eastern red-backed salamanders. Committee: Dr. Kenneth Adams and Dr. Kevin Curry.
2020. *Alyssa St John*.

Committee member for undergraduate honors thesis, Bridgewater State University

2015. *Nara F. Nascimento*. The Effects of Running Wheel Access on the Symptoms of Type-2 Diabetes in TallyHo/JngJ Mice. Mentor: Dr. Joseph Seggio.
2017. *Rachel Gelineau*. Combined consumption of alcohol and a high-fat diet: effects on behavior and health in male and female C57Bl/6J mice. Mentor: Dr. Joseph Seggio.
2017. *Michelle Jennette*. High Fructose Corn Syrup Down-Regulates Glycolysis Pathway in *Apis mellifera*. Mentor: Dr. Jonathan Roling.
2019. *Emily Green*. The Effects of *Meloidogyne incognita* on JAZ1, JAZ12, and JAZ13 Gene Expression in *Arabidopsis*. Mentor: Dr. Heather Marella.
2019. *Mia Sarkisian*. Orangutan infant behavior: A critical component for primate conservation. Mentor: Dr. Ellen Ingmanson (Anthropology).
2019. *Kaitlin Cook*. Bridging the Gaps in Elementary Life Sciences Lessons. Mentors: Dr. Nicole Glen (Education) and Dr. Heather Marella.

Student Presentations at Bridgewater State University

2019. *Alexander O'Roak*. Effects of increased canopy cover on the abundance of eastern red-backed salamanders (*Plethodon cinereus*). Friday Informal Seminar Hour, Bridgewater State University. *Oral presentation*.
2019. *Alexander O'Roak*. Effects of increased canopy cover on the abundance of eastern red-backed salamanders (*Plethodon cinereus*). ATP Summer Symposium, Bridgewater State University. *Poster presentation*.
2019. *Elena Babicz*. Effects of shade and soil composition on salamander abundance. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2019. *Alexandra Bebko*. A review of *Plethodon cinereus* travel and movement in varying conditions. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2019. *Sean King*. Territoriality of the red-backed salamander. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2019. *Alexander O'Roak*. Abundance of the red-backed salamander. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2019. *Julia Whalen*. Preliminary results of a common garden experiment with *Asclepias syriaca* (common milkweed). Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2018. *Elena Babicz*. A preliminary analysis of environmental correlates of *Plethodon cinereus* abundance. Friday Informal Seminar Hour, Bridgewater State University. *Oral presentation*.

2018. *Elena Babicz*. SPARCnet Year 1.5: Preliminary results of a long-term mark-recapture study on *Plethodon cinereus* in Bridgewater, MA. ATP Summer Symposium, Bridgewater State University. *Poster presentation*.
2018. *Elena Babicz*. SPARCnet Year 1: Preliminary results of a long-term mark-recapture study on *Plethodon cinereus* in Bridgewater, MA. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2018. *Sarah Couto*. Initial Findings in a Long-Term Mark-Recapture Survey on the Eastern Red Backed Salamander, *Plethodon cinereus*. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2018. *Mariah Fossella*. Where Do BSU Students and Faculty Come From? A Phylogenetic Study. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2018. *Emma Perry*. Fall vs. Spring Predation on Eastern Red-Backed Salamander. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2018. *Julia Whalen*. Introduction to Field and Greenhouse Techniques for Evolution Education. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2017. *Emma Perry*. Dawn of The Claymanders: Revealing the predators of eastern red-backed salamanders (*Plethodon cinereus*). Mid-Year Symposium, Bridgewater State University. *Poster presentation*.
2017. *Elena Babicz, Sarah Couto, Emma Perry*. BSU Joins SPARCnet: The Salamander Population and Adaptation Research Collaboration Network. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2017. *Mariah Fossella*. Distribution of *Plethodon cinereus* color morphs in New England: 40 years later. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2017. *Matthew Tucker*. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2016. *Anna Back and Mariah Fossella*. Distribution of *Plethodon cinereus* color morphs in Massachusetts: 40 years later. Friday Informal Seminar Hour, Bridgewater State University. *Oral presentation*.
2016. *Nathan Pierce and Matthew Tucker*. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. Friday Informal Seminar Hour, Bridgewater State University. *Oral presentation*.
2016. *Anna Back and Mariah Fossella*. Distribution of *Plethodon cinereus* color morphs in Massachusetts: 40 years later. ATP Summer Symposium, Bridgewater State University. *Poster presentation*.
2016. *Nathan Pierce and Matthew Tucker*. Effects of habitat fragmentation on the population genetics of *Plethodon cinereus*. ATP Summer Symposium, Bridgewater State University. *Poster presentation*.
2016. *Anna Back*. Does Soil Moisture Influence Morph Frequency in *Plethodon cinereus*? Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.

2016. *Mariah Fossella*. Adult *P. cinereus* Territoriality of Artificial Cover Objects. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2016. *Rayssa Ribeiro*. Are Terrestrial Salamanders Impacted by Soil Salinity? A Pilot Study. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2016. *Nathan Pierce*. Cover Object Preference and its Effect on Color Morph Frequencies in *Plethodon cinereus*. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2016. *Matthew Tucker*. Responses of *Plethodon cinereus* to Differences in pH and Temperature of Soil. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2015. *Alexandrea Carreiro*. A review of ecological differences between two morphs of the eastern red-backed salamander, *Plethodon cinereus*. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2015. *Mariah Fossella*. A review of *Plethodon cinereus* distribution based on forest characteristics. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.
2015. *Nathan Pierce*. How will *Plethodon cinereus* be affected by habitat change? A review of the literature. Student Arts and Research Symposium (StARS), Bridgewater State University. *Poster presentation*.

GRANTS, FELLOWSHIPS, AWARDS – FUNDED

Collaborative Research: Applying the CURE model to build connected classrooms for investigations across biological inquiry levels using the Eastern Red-backed Salamander.

Principal Investigator along with colleagues at Michigan State University, Pennsylvania State University, University of Massachusetts Amherst, and University of Richmond. National Science Foundation Division of Undergraduate Education, Improving Undergraduate STEM Education Program. 2019–2022. Total Award: \$597,724.00; BSU Portion of Award: \$95,878.00.

Travel Grant for attending the 2019 NENHC in Springfield MA and chair a session. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2019. \$1350.

Academic Innovation Fund to develop a new course: *Becoming a Biologist: A New Model for a Student-Centered Curricular Experience*. Project Leaders: Heather Marella and **M. Caitlin Fisher-Reid**, Division of Academic Affairs, Bridgewater State University. 2018–2019. \$27,628.87

Summer Teacher Scholar Institute: Technology in Pedagogy Track to restructure a course using educational technology. Office of Teaching and Learning, Bridgewater State University. 2018. \$1200.

Faculty and Librarian Research Grant to develop range-wide molecular markers for *Plethodon cinereus*. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2018–2019. \$8000.

Massachusetts Mathematics and Science Partnership (MMSP) grant to develop an evolution course for K-12 teachers. Center for the Advancement of STEM Education, Bridgewater State University. 2018. \$3200.

- Travel Grant* for attending the 2018 NENHC in Burlington VT. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2018. \$500.
- First Year Seminar Course Enhancement Grant* for BIOL 199 during the Fall 2017 semester. Academic Affairs, Bridgewater State University. 2017. \$300
- Course-Embedded Research Grant* for BIOL 199 during the Fall 2017 semester. Office of Undergraduate Research, Bridgewater State University. 2017. \$500.
- Travel Grant* for attending the 2017 NENHC in Cromwell CT. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2017. \$500.
- Avida-ED Active LENS Workshop for Faculty* awarded to M. Caitlin Fisher-Reid and Maria Armour to attend workshop at Michigan State University's BEACON Center to learn how to use education software, Avida-ED. 2016. All travel, lodging, and meals covered by NSF funds to BEACON Center from June 9–11, 2016. ***MCFR invited to return for full July 2017 workshop as 2016 alumna. All travel, lodging, and meals covered by NSF funds to BEACON Center from July 26–30, 2017***
- Travel Grant* for attending the 2016 NENHC in Springfield MA. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2016. \$500.
- Faculty and Librarian Research Grant* to purchase start up equipment needed to join SPARCnet: The Salamander Population and Adaptation Research Collaborative Network. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2016–2017. \$8000.
- Darwin Day @ BSU CASE Grant* for New Initiatives awarded to M. Caitlin Fisher-Reid, Maria Armour, and Thilina Surasinghe to establish annual Darwin Day celebration. Center for the Advancement of STEM Education, Bridgewater State University. 2015. \$5000
- Teacher Creativity Fellowship* awarded to Carrie A. Bilodeau; M. Caitlin Fisher-Reid served as expert evolutionary biologist on two-week trip to the Galápagos Islands. Lilly Endowment, Inc. 2015. \$10,000.
- Travel Grant* for attending the 2015 NENHC in Springfield MA. Center for the Advancement of Research and Scholarship, Bridgewater State University. 2015. \$750.
- Mountain Lake Biological Station Early Career Fellowship*, for summer research station and laboratory fees, Mountain Lake Biological Station, University of Virginia. 2013. \$1650.
- Outstanding Teaching Assistant Award*, Department of Ecology and Evolution, Stony Brook University. 2012.
- President's Award for Excellence in Teaching by a Graduate Student*, Graduate School, Stony Brook University. Annual award to six graduate students across campus to recognize excellence in teaching. 2011. \$500.
- Alumni Association Dean's Choice Award*, Graduate School, Stony Brook University, First recipient of a new annual award to one graduate student across campus to promote alumni relations and to assist in completion of the graduate degree. 2011. \$1000.
- American Society of Ichthyologists and Herpetologists Travel Award* to attend 2010 Joint Meetings of Ichthyologists and Herpetologists, American Society of Ichthyologists and Herpetologists. 2010. \$300.
- Gaige Award* for proposed research expenses, American Society of Ichthyologists and Herpetologists. 2010. \$500.
- Conservation Leadership Award* for activism regarding hotel construction on Stony Brook University campus, First recipient, Department of Ecology and Evolution, Stony Brook University. 2010.

George C. Williams Award for proposed research expenses, Department of Ecology and Evolution, Stony Brook University. 2010. \$500.

GRANTS, FELLOWSHIPS, AWARDS – NOT FUNDED

Faculty and Librarian Research Grant to explore the skin microbial communities of the eastern red-backed salamander. Center for the Advancement of Research and Scholarship, Bridgewater State University. Spring 2020. Not selected, encouraged to resubmit in next funding cycle.

Collaborative Research: Applying the CURE model to build connected classrooms for investigations across biological inquiry levels using the Eastern Red-backed Salamander National Science Foundation – Division of Undergraduate Education, Improving Undergraduate STEM Education Program. PI along with colleagues at Michigan State University, Pennsylvania State University, University of Massachusetts Amherst, and University of Richmond. First submitted 1/2017, not funded 6/2017. Resubmitted 12/2017, not funded 6/2018. Resubmitted 12/2018, funded 7/2019 (see above).

Preliminary Proposal: RUI: Long-term impacts of an invasive intertidal predator: invasion history, genetic structure, and self-limitation, National Science Foundation – Division of Environmental Biology, Population and Community Ecology Program. Submitted 1/2016. Co-PI along with Drs. Christopher Bloch (PI) and Kevin Curry (Co-PI). Not invited for full proposal, 5/2016. Resubmitted in 1/2017 as *RUI: Invasion history and prey depletion by an invasive intertidal predator: effects on abundance, fecundity, and ecological impacts*. Not invited for full proposal, 5/2017.

Daniel J. Smith Award to support summer research, Bartlett College of Science and Mathematics, Bridgewater State University. Applied 5/2015 and 5/2017, not selected for award either year. Did not qualify for award in 5/2016 or 5/2018 due to funded CARS Faculty and Librarian Research Grants.

INVITED PEER REVIEW

Book chapters: Animal Behavior: Concepts, Methods, and Applications (2013; Oxford University Press, by Nordell and Valone). 2011.

Book chapters: Evolution: Making Sense of Life (2nd edition; Roberts and Company Publishers, by Zimmer and Emlen). 2014.

Book chapters: Ecology: A Unified Approach (forthcoming; Oxford University Press, by Stevens). 2015.

Marketing Review: Ecology: Evolution, Applications, Integration (1st edition; Oxford University Press, by Krohne). 2015.

Book chapters: Introductory Ecology (forthcoming; Oxford University Press, by Fox). 2016.

Book chapters: Constructing Ecology (forthcoming; W.W. Norton & Company, by Paradise). 2016.

Online supplements: Ecology: Evolution, Applications, Integration (1st edition; Oxford University Press, by Krohne). 2017.

Reviewer of graduate student research proposals submitted to the Herpetologist's League for the 2017 E.E. Williams Award. 2017.

Video Scripts: Evolution: Making Sense of Life (3rd edition; Oxford University Press, by Zimmer and Emlen). 2018.

Book chapters: Forthcoming Ecology Textbook (1st edition; W.W. Norton & Company, by Marchetti et al.). 2018.

Book chapters: Ecology: The Economy of Nature (9th edition; Bedford Freeman & Worth Publishing Group, by Relyea and Ricklefs). 2018.

Book chapters: Ecology in Action (2nd Edition; Cambridge University Press; by Singer). 2019.
External reviewer for research grant. Ohio University Research Council. 2020.

Ad-hoc reviewer for manuscripts submitted to: *Amphibia-Reptila* (1), *Copeia* (2), *Current Zoology* (1), *Ecography* (2), *Ecology and Evolution* (2), *Evolution* (1), *Heredity* (1), *Journal of Biogeography* (1), *Journal of Heredity* (1), *Journal of Insect Science* (1), *Journal of Zoological Systematics and Evolutionary Research* (1), *Molecular Ecology* (2), *Oikos* (1), *PLoS One* (1), *Teaching Issues and Experiments in Ecology* (1), *The Open Ecology Journal* (1).

SERVICE & OTHER PROFESSIONAL ACTIVITIES

Bridgewater State University

Member. Academic Integrity Working Group, 2014 – 2015.

Chair. Darwin Day @ BSU committee. 2015 – present.

Member. Academic Policy Committee and Academic Review Board, 2016 – 2020.

Round-Table Leader. Office of Teaching and Learning Part-Time Faculty Development Program, Spring 2017.

Bartlett College of Science and Mathematics, Bridgewater State University

Education Liaison. CAEP Assessments, 2015 – present.

Faculty Mentor. Women in Science Residential Learning Community, 2016 – present.

Department of Biological Sciences, Bridgewater State University

Member. Wildlife Ecologist Search Committee, 2014.

Academic advisor for

- 32 students, Fall 2014
- 44 students, Spring 2015
- 33 students, Fall 2015
- 36 students, Spring 2016
- 38 students, Fall 2016
- 38 students, Spring 2017
- 32 students, Fall 2017
- 38 students, Spring 2018
- 23 students, Fall 2018
- 33 students, Spring 2019
- 26 students, Fall 2019
- 30 students, Spring 2020

Co-coordinator. Department of Biological Sciences' Friday Informal Seminar Hour (FISH). 2016 – present.

Other Academic and Professional Activities

2020 **Herpetology expert.**

CUNY Macaulay Honors College BioBlitz, Virtual Webinar.

2020 **Participant.**

BIOME Institute: Cultivating Scientific Curiosity, Virtual Workshop.

2020 **Attendee.**

Science Communication (SciComm) 2020, Virtual Conference.

2020 **Attendee.**

- Society for the Advancement of Biology Education Research (SABER), Virtual Conference.
- 2019 **Herpetology taxon leader.**
CUNY Macaulay Honors College BioBlitz, Green-Wood Cemetery, Brooklyn, NY.
- 2019 **Attendee.**
Northeast Partners in Amphibian and Reptile Conservation (NEPARC), Galloway, NJ.
- 2019 **Volunteer taxonomic specialist.**
Great Walden BioBlitz, Concord, MA.
- 2019 **Attendee.**
Association for Biological Laboratory Education (ABLE), Ottawa, Ontario, Canada.
- 2019 **Session chair & attendee.**
Northeast Natural History Conference (NENHC), Springfield, MA.
- 2019 **Attendee.**
Project Kaleidoscope Regional Network Winter Meeting, Norton, MA.
- 2018 **Herpetology taxon leader.**
CUNY Macaulay Honors College BioBlitz, Inwood Hill Park, New York, NY.
- 2018 **Attendee.**
Northeast Partners in Amphibian and Reptile Conservation (NEPARC), Amherst, MA.
- 2018 **Attendee.**
Salamander Population and Adaptation Research Collaboration Network Meeting, State College, PA.
- 2018 **Attendee.**
Project Kaleidoscope Regional Network Summer Meeting, Salem, MA.
- 2018 **Attendee.**
Northeast Natural History Conference (NENHC), Burlington, VT.
- 2017 – present. **Member.** Milkweed Adaptation Research and Education Network (MAREN).
- 2017 **Attendee.**
Salamander Population and Adaptation Research Collaboration Network Meeting, Petersham, MA.
- 2017 **Photography contributor.**
Book of Snakes, by Mark O’Shea, Ivy Press and University of Chicago Press.
- 2017 **Attendee.**
Northeast Natural History Conference (NENHC), Cromwell, CT.
- 2016 **Photography contributor.**
Hidden Talent: Photography, Center for the Advancement of Research and Scholarship May Celebration, Bridgewater State University, Bridgewater, MA.
- 2016 **Photography contributor.**
A case study approach to ecology field studies, by Jahoda et al. Kendall Hunt Publishing Company
- 2016 **Photography contributor.**
Wetland Plants of New England, by Donald J. Padgett, Spatterdock Press.
- 2016 **Attendee.**
Northeast Partners in Amphibian and Reptile Conservation (NEPARC), Poultney, VT.
- 2016 **Attendee.**
North East Natural History Conference (NENHC), Springfield, MA.
- 2015 **Attendee.**

- Northeast Partners in Amphibian and Reptile Conservation (NEPARC), Greenwich, RI.
2015 **Attendee.**
Northeast Natural History Conference (NENHC), Springfield, MA.
2015 – present. **Member.** The Salamander Population and Adaptation Research Collaborative Network (SPARCnet).
2014 **Photography contributor.**
American Spirit Magazine, "The Women of Laura Plantation," March/April 2014 Issue.
2013 **Attendee.**
Southeastern Population Ecology and Evolutionary Genetics (SEPEEG).
2011 **Tattoo photo and story contributor.**
Science Ink: Tattoos of the Science Obsessed, by Carl Zimmer.

PROFESSIONAL AFFILIATIONS

American Society of Ichthyologists and Herpetologists
Association for Biological Laboratory Education
National Center for Science Education (sustaining member)
Northeastern Naturalist
Society for the Study of Amphibians and Reptiles
Society for the Study of Evolution