

Emily S. Durkin – Curriculum Vitae

PROFESSIONAL APPOINTMENTS

2021-Present- Assistant Professor, University of Tampa, Tampa, FL

2021-2021- Postdoctoral researcher, University of Kentucky, Lexington, KY

2019-Dec. 2020- Postdoctoral researcher, University of Florida, Gainesville, FL

EDUCATION

2014-2019-PhD- Ecology, University of Alberta, Edmonton AB

2009-2013-MSc- Biology, Northern Michigan University, Marquette MI

2005-2009-BSc- Biology, Summa Cum Laude, Northern Michigan University, Marquette MI

PUBLICATIONS

6. Durkin, E S, S T Cassidy, R Gilbert, E Richardson, A M Roth, S Shablin and C N Keiser. Parasites of spiders: their impacts on host behavior and ecology (2021). *Journal of Arachnology*. 49: 281-298. [Link](#)
5. Durkin, E S, A M Roth and C N Keiser (2020). Parasitic personalities: consistent individual differences in behavior in a facultatively parasitic mite. *Journal of Insect Behavior*. [Link](#)
4. Durkin, E S, H. Proctor and L T Luong (2019). Laboratory culture of *Macrocheles muscaedomesticae* (Parasitiformes: Macrochelidae): new insights on life history and evidence for facultative parasitism on *Drosophila*. *Experimental and Applied Acarology*. 79: 309-321. [Link](#)
3. Durkin, E S and L T Luong (2019) Phenotypic plasticity more essential to maintaining variation in host-attachment behaviour than evolutionary trade-offs in a facultatively parasitic mite. *Parasitology*. 146: 1289-1295. [Link](#)
2. Durkin, E S and L T Luong (2018) Experimental evolution of infectious behaviour in a facultative ectoparasite. *Journal of Evolutionary Biology*. 31: 362-370. [Link](#)
1. Durkin, E S, L T Luong and J Bird (2015) Mechanisms underlying parasite infection: influence of host body mass and age on chewing louse distribution among brown-headed cowbirds. *Parasitology Research* 114(11): 4169-4174. [Link](#)

GRANTS AND AWARDS

2018 FGSR Student travel award, University of Alberta	\$1,500 CAD
2018 Student travel award, American Society of Parasitologists	\$300 USD
2018 Travel and accommodations for Cactophilic <i>Drosophila</i> Meeting	
2017 Teaching innovation Award, University of Alberta, biology	\$1,000.00 CAD
2017 GSA travel award, University of Alberta	\$500.00 CAD
2014 Travel award, International Society of Phthirapterists	\$600.00 USD
2013 Development Fund, Northern Michigan University	\$1,000.00 USD
2013 Arts and Science Fund, Northern Michigan University	\$325.00 USD
2009-2012 Excellence in education award, Northern Michigan University	\$4,500.00 USD

TEACHING

TEACHING HISTORY

- **Course Instructor** Parasitology; University of Tampa (Fall 2021). Study abroad in Cuzco, Peru-Emerging disease in the Americas; University of Florida (Summer 2020). *Cancelled due to COVID-19
- **Course Designer** Course-based Undergraduate Research Experience (CURE): Moss preferences of microarthropods. University of Florida (Spring 2020)
- **Large-classroom Course Activity Designer** Introduction to Biological Diversity. University of Alberta
- **Teaching Assistant** Principles of Evolution. University of Alberta.
- **Lab Instructor**
 - **University of Alberta:** Introduction to Biological Diversity, Survey of the Invertebrates, Survey of the Vertebrates, Mechanisms of Evolution, Wildlife Disease
 - **Northern Michigan University:** Principles of Biology, Introduction to Cellular and Molecular Biology, Genetics, Medical Microbiology, Human Anatomy
- **Academic Guest Lectures**

Year	Lecture Title	Course	Institution
2021	Exp. Evolution of Behavior	Animal Behavior	University of Pittsburgh
2020	Research in insect Microbes	Honors Intro. To Biological Principles	University of Florida
2019	Research in insect Microbes	Honors Intro. To Biological Principles	University of Florida
2019	Sickness Behaviors	Ecology and Evolution of Disease	University of Florida
2019	Parasite Evolution	Behavioural Disease Ecology	University of Florida
2017	Origin of Life	Into. to Biological Diversity	University of Alberta
2017	Speciation	Into. to Biological Diversity	University of Alberta
2017	Theory of Evolution	Into. to Biological Diversity	University of Alberta
2015	Coevolution	Mechanisms of Evolution	University of Alberta

MENTORSHIP EXPERIENCE

Graduate Students

- E. Richardson. University of Florida, Master's student in Keiser lab.

Undergraduate Students

- E. Stone. University of Florida, research intern.
- B. Jabot. University of Florida, research intern.
- C. Gerena. University of Florida, research intern.
- S. Fang. University of Alberta, senior research experience student.
- I. Moghe. University of Alberta, senior research experience student.
- H. Goya. University of Alberta, research intern.
- P. Phiri. University of Alberta, research intern.
- D. Yee. University of Alberta, research intern.
- M. Mierzejewski. University of Alberta, research intern.
- D. Subasinghe. University of Alberta, research intern.

- M. Porter. Northern Michigan University, Capstone senior research student.

High School Students

- J. Chappa. Miami Palmetto Senior High School, Student Science Training Program student, University of Florida.

PRESENTATIONS

INVITED SEMINARS AND SYMPOSIA

2020 Durkin ES The role of behavior in the evolution of parasitism in mites, Acarological Society of America, Symposium: Mitey Women, Virtual Conference.

2019 Durkin ES and Keiser CN. Experimental evidence for how parasitism may evolve in mites: Heritability and variation in host-association behaviors, Acarological Society of America, Symposium: Mite Evolution, St. Louis, MO.

2018 Durkin ES and Luong LT. Evolutionary ecology of parasitism in a facultatively parasitic mite, Cactophilic *Drosophila* research, Álamos, Sonora, Mexico.

SCIENTIFIC PRESENTATIONS

International

2021 Durkin ES, Stone E, Cook A, Richardson, E, Roth AM, Lazarro B and Keiser CN. Individual differences in mite behavior and the potential to vector bacteria between hosts. Ecology and Evolution of Infectious Disease, Virtual Conference.

2020 Durkin ES, Roth AM and Keiser CN. Parasitic personalities: consistent individual differences in behavior in a facultatively parasitic mite, Animal Behavior Society, Virtual Conference.

2020 Durkin ES, Roth AM and Keiser CN. Parasitic personalities: consistent individual differences in behavior in a facultatively parasitic mite, The Association for the Study of Animal Behaviour, Virtual Conference.

2018 Durkin ES and Luong LT. Evolutionary tradeoffs do not constrain the evolution of infectivity in a facultatively parasitic mite (*Macrocheles muscaedomesticae*), Entomological Society of America, Vancouver, Canada.

2018 Durkin ES and Luong LT. The Ecology and evolution of parasitism, American Society of Parasitologists, Cancun, Mexico.

2016 Durkin ES and Luong LT. Parasite evolution: heritable variation in infection strategy in a facultative parasite American Society of Parasitologists, Edmonton, Canada.

2015 Durkin ES, Luong LT and Bird J. Influence of host body mass and age on chewing louse distribution among brown-headed cowbirds, Canadian Society of Zoologists, Calgary, Canada

2016 Durkin ES and Luong LT. Experimental evolution of a facultative parasite: evidence for heritability in host exploitation, Canadian Society of Ecology and Evolution, St. John's, Canada.

2013 Durkin ES and Bird J Effect of host sex and age on a component community of chewing lice, American Society of Parasitologists, Quebec City, Canada.

National

2019 Durkin ES, Kesier CN and Luong LT. The role of behaviour in parasite evolution, Ecology and Evolution of Infectious Disease, Princeton, NJ.

2017 Durkin ES and Luong LT. Experimental evolution of infectious behaviour in a facultative parasite: an evolutionary stepping-stone towards parasitism, Evolution, Portland, Oregon.

2016 Durkin ES and Luong LT. Experimental evolution of a facultative parasite: evidence for heritability in host exploitation, Canadian Society of Ecology and Evolution, St. John's, Canada.

2014 Durkin ES and Bird J. Influence of brown-headed cowbird behaviour and body size on chewing louse distribution, International Conference on Phthiraptera in Park City, Utah.

Regional

2020 Durkin ES The role of behavior in parasite evolution, Emerging Pathogens Institute's Research Day, Gainesville, FL

2019 Durkin ES & Keiser CN Behavior of Parasites, Science by the Shore Biology Conference, St. Augustine, FL

2018 Durkin ES & Luong LT The evolutionary ecology of parasitism. Richard E. Peter Biology Conference, Edmonton, Canada.

2017 Durkin ES & Luong LT The fate of phenotypic plasticity in the midst directional selection in a facultative parasite. Richard E. Peter Biology Conference, Edmonton, Canada.

2016 Durkin ES & Luong LT Breeding parasites: Heritability of genetic variation in the infection behaviour of a facultative parasitic mite, Richard E. Peter Biology Conference, Edmonton, Canada.

2015 Durkin ES, Luong LT & Bird J Mechanisms underlying parasite infection: influence of host body mass and behaviour on chewing louse distribution among brown-headed cowbirds, Richard E. Peter Biology Conference, Edmonton, Canada.

2014 Durkin ES & Bird J Effect of host sex on chewing louse communities on brown-headed cowbirds, Richard E. Peter Biology Conference, Edmonton, Canada.

2013 Durkin ES & Bird J Differences in chewing louse communities found on male and female brown-headed cowbirds, Beta Beta Beta Biological Honors Society Seminar, Marquette, MI.

TEACHING PRESENTATIONS

2020 Durkin ES Raise the Bar Escambia County Teacher Conference, Teaching on 'Infectious Agents' in 6th and 7th grade classrooms, Pensacola, FL.

2020 Durkin ES Forest Hill High School Professional Development, Using mites in the classroom, Forest Hill High School Professional Development, West Palm Beach, FL.

2019 Durkin ES Scientist in Every Florida School Webinar, Putting the nature of science into practice. [Link to presentation](#)

SERVICE

PROFESSIONAL SERVICE

2021- Pres Identity Committee member for the Biology Department's Task Force, UTampa

2020-2021 Postdoc representative for the Biology department's Inclusion, Diversity, Accessibility & Equity Committee, University of Florida

2019 Poster judge for undergraduate research symposium, University of Florida

2018 Poster judge for R.E. Peter Biological Sciences Conference, University of Alberta

2018 Study skin preparer, Royal Alberta Museum- Ornithology Division

2016 Grad. Student rep. on Biological Sciences hiring search committee, University of Alberta

2016 Scientific judge on the Images of Research Judiciary Committee, University of Alberta

ACADEMIC REVIEW-served as a reviewer for the following journals

2019-2021 Ecology and Evolution (x4)

2019-2021 Journal of Parasitology (x3)

2020 Canadian Journal of Zoology

2020 Journal of Economic Entomology

2019 Experimental and Applied Acarology

ACADEMIC OUTREACH

2019-Pres. Scientist, Thompson Earth Systems Institute's Scientist in Every Florida School

2021 Meet a Scientist: Parasites! Live Zoom Webinar presentation and Q&A period geared toward K-5 students.

2021 Met with Angela Riccio's 7th grade classroom over Zoom to discuss parasites and symbiotic relationships.

2020 Forest Hill High School Professional Development, Presenter, 'Using Mites in the Classroom' presenter. I developed reference materials for teachers on mites and other soil microinvertebrates, instructions on how to find, collect and culture mites, and developed experimental ideas using live mites that could emphasize ecology, evolution, environmental science, scientific theory and experimental design.

2020 Raise the Bar Escambia County Teacher Development Conference (200 K-12 teacher attendees), presenter and classroom activity developer (infectious agents). Working with a representative from the Scientist in Every Florida School Program, we developed an activity based on my research to use in middle-school classrooms that focused on the State of Florida's infectious disease and evolution science standards. I presented our activity to teachers at the conference and led teachers through the activity as a group. All the materials I developed were made available to the teachers online.

2019 Teacher webinar series: Putting the nature of science into practice, presenter. I did a virtual presentation on my own research, and the importance of experimental design for rigorous science in the classroom to Florida K-12 teachers. [Link to presentation](#)

2018-Pres. Skype a Scientist (K-12 classrooms), science presenter. Through this program, I meet with classrooms, particularly those from schools that serve kids from underrepresented groups, to talk about my science. I also discuss how I got into science and answer any questions the students have.

Date	Teacher	Audience
May 21, 2021	Celeste Ward	3 rd graders
April 21, 2021	Kelly Milliken	4 th graders
March 5, 2021	Krista Moser	7 th graders
October 30, 2020	Jenna McIntire	6 th graders
March 7, 2019	Rebecca Henson	9 th graders
October 26, 2018	Xanat Gonzales-Darson	10 th graders

2020 Junior Science, Engineering and Humanities Symposium (20 FL high school students), lab presenter. I toured high school students through the Keiser lab at the University of Florida, explaining our research and the animals we use. I answered student questions as well.

2019 California Ecology and Conservation course at Anza Borrego Desert research station (20 University of California undergrads), research presenter. I met with a group of University of California Ecology students that were participating in a hands-on ecology research course. I presented my research, my path to becoming a science researcher and answered student questions.

2016-18 Science FUNday (2,500 attendees, all ages), organizer and educator. This all-day event brought families into the university to learn about different sciences. The first year I volunteered, I lead families through the University of Alberta's vertebrate collection and answered questions. The last two years, I organized a parasitology booth. I recruited volunteers, and specimens. Together, we introduced the public to some of the awesome parasites found in Alberta.

2017 Planting Science (three 8th grade classrooms consisting of about 24 students), mentor. Through this online program, I was paired with multiple 8th grade classroom science classes with which I would spend an entire semester with. The students designed and implemented experiments involving plants. I met with the students every other week to help them plan experiments, analyze their data and answer their questions.

2016 Telus World of Science's Dark Matters (250 attendees, 21+), educator. I worked a station in which I educated public attendees about the many interesting ways in which invertebrates engage in reproduction.

2014-17 Let's Talk Science's School of Witchcraft and Wizardry: The Science of Magic! (1,500 attendees, all ages), organizer and educator. Educated attendees on vertebrate animals and their bones/body parts that inspired mythical creatures. In 2016 and 2017 another grad student and I organized a new parasitology room for the event. We created parasite-themed games and activities for kids and brought in parasite specimens to introduce all ages to parasites and some of their biology.

2014-16 Nature Alberta's Family Nature Nights (50 attendees, all ages), group leader. Family nature nights occurred once a month during the summers. I lead families through activities specific to the month's theme and on nature walks where we would find and identify plants and animals.

2014-16 Nature Alberta's International Migratory Bird Day (100 attendees, all ages), group leader. Lead an activity about bird identification for the families in attendance throughout the event.

2014 WISEST Choices Conference (300 attendees, 6th-8th grade girls), experiment supervisor. Assisted students throughout the day with multiple biology experiments. I also lead discussions on the science of the experiments and how to continue on to develop career paths in science.

2014 Team Up Science!: Interdisciplinary Science Competition supervisor. Monitored and assisted local high school students with experiments (to the extent I was able) for a science competition that was held at the University of Alberta.

2011-2013 Michigan Science Olympiad, supervisor. Wrote, proctored, and judged the exams for the event 'Disease Detectives'. Northern Michigan University.

MEDIA COVERAGE

2021 Lopez, L. "How an evolutionary biologist found her place in entomology". Entomology Today by the Entomological Society of America. Link to article:

https://entomologytoday.org/2021/08/04/evolutionary-biologist-found-place-entomology-emily-durkin-standout-early-career-professional/?fbclid=IwAR3Q52l-vao5Tj4XHDLj8LAvRs2r3XfJQyi-ss_WBF5YIH0EOMqKjzLSfvc

PROFESSIONAL AFFILIATIONS

- 2020-Pres.** Animal Behavior Society
2020-Session moderator for virtual conference
- 2018-Pres.** Acarological Society of America
2020-Organizer for 2020 Women in Acarology symposium
- 2017-Pres.** Entomological Society of America
- 2013-2019** American Society of Parasitologists
2019- Educator for Parasitology Day
2016- Seminar chair at annual meeting in Edmonton, AB Canada
- 2017** Society for the Study of Evolution

References available upon request.