

# Delaney L. Miller

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## EDUCATION

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- 2017 – present      PhD Candidate, Indiana University Bloomington, Department of Biology  
Ecology, Evolution and Behavior; GPA: 3.81
- 2013-2017          Biology B.S., New Mexico Institute of Mining and Technology, Department of  
Biology  
Biology; GPA: 3.60

## RESEARCH EXPERIENCE

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- 2017 – present      PhD Candidate, Indiana University Bloomington  
Department of Biology, PI: Dr. Irene L. G. Newton  
Functional ecology and genetics of a defensive symbiosis in the European  
honey bee.
- 2016 -2017          Independent Student Researcher, New Mexico Institute of Mining and  
Technology  
Department of Biology, PI: Dr. Thomas Kieft  
Characterization of anaerobic co-culture from Tau Tona Mines.
- 2015                  Research Assistant, New Mexico Institute of Mining and Technology  
Department of Biology, PI: Dr. Jamie Voyles  
Characterizing variation in virulence and growth conditions between  
ancestral and evolved strains of the amphibian pathogen,  
*Batrachochytridium dendrobatitis* (Bd).

## PUBLICATIONS

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- Miller DL, Smith EA, Rice D, Newton IL. 2020. A bacterial symbiont protects honey bees from fungal disease. *bioRxiv* 2020.01.21.914325.
- Smith EA, Vuong HQ, Miller DL, Parish AJ, McFrederick QS, Newton ILG. 2020. Draft Genome Sequences of Four *Saccharibacter* sp. Strains Isolated from Native Bees. *Microbiology Resource Announcements*. Vol. 9. DOI: 10.1128/MRA.00022-20
- Smith EA, Martin-Eberhardt SA, Miller DL, Parish AJ, Newton ILG. 2019. Draft Genome Sequence of a *Bombella apis* Strain Isolated from Honey Bees. *Microbiology Resource Announcements* Vol. 8. DOI: 10.1128/MRA.01329-19
- Miller DL, Parish AJ, Newton IL. 2019. Transitions and transmission: behavior and physiology as drivers of honey bee-associated microbial communities. *Curr Opin Microbiol*. Elsevier Ltd. DOI: 10.1016/j.mib.2019.08.001
- Voyles J, Johnson LR, Rohr J, Kelly R, Barron C, Miller D, Minster J, Rosenblum EB. 2017. Diversity in growth patterns among strains of the lethal fungal pathogen *Batrachochytrium dendrobatidis* across extended thermal optima. *Oecologia* 184:363–373. DOI: 10.1007/s00442-017-3866-8

## PRESENTATIONS

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- August 2020 Miller DL, Newton IL. *Defensive symbiont suppresses fungal pathogens of Apis mellifera*. Talk for 2020 GEMS seminar series.
- October 2019 Miller DL, Newton IL. *Evidence of symbiont-mediated defense against fungal pathogens in the Apis mellifera*. Poster presented at IU Microbiology Retreat.
- June 2019 Miller DL, Newton IL. *Evidence of symbiont-mediated defense against fungal pathogens in the Apis mellifera*. Poster presented at GRC Animal-Microbe Symbioses.
- May 2019 Miller DL, Newton IL. *Something borrowed, something new: novel functions in an environmentally acquired symbiont of honey bees*. Invited talk at Purdue Microbiome Symposium 2019.
- April 2019 Miller DL, Newton IL. *Something borrowed, something new: novel functions in an environmentally acquired symbiont of honey bees*. Talk at IU EEB program's Brown Bag series.
- October 2018 Miller DL, Newton IL. *The enemy of my enemy is my friend: A defensive symbiosis in the honey bee*. Talk at IU Microbiology Program's Microphiles.
- July 2018 Miller DL, Newton IL. *Acetic acid bacteria as inhibitors of entomopathogenic fungi*. Poster presented at International Symbiosis Society (ISS).
- 2015 Barron C, Miller DL, Voyles J. *Experimental evolution with the lethal pathogen, Bactrachochytrium dendrobatidis*. Poster presented at INBRE.

## GRANTS AND AWARDS

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March 2020 – present	\$502,077	NSF IOS (data contributor)
April 2019 – March 2020	\$2,000	IURTP Student Research Grant (author)
March 2019- June 2020	\$52,000	Project Apis m. (author)
Summer 2018	\$1,600	Floyd Plant and Fungal Biology Fellowship (author)
Spring 2018	\$500	Cleland Plant and Fungal Science TA (author)

## PROFESSIONAL DEVELOPMENT

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March -April 2019	NSF Midwest innovation-Corps (I-Corps) Customer Discovery
March 2019	Agriculture Technology Introduction to Customer Discovery
March 2019	Agriculture Innovation Technology Summit

## TEACHING EXPERIENCE AND OUTREACH

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Spring 2020	Assistant Instructor for Molecular Microbiology Laboratory at Indiana University (M315)
2018 – 2019	Assistant Instructor for Biology Laboratory at Indiana University (L113)
Fall 2018, 2019, 2020	IU Science Fest, <i>Bee for a Day</i> Module

## MENTORING AND TRAINING

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Spring 2020	Elizabeth Morrison (PhD student)
Fall 2019	Aimee Lee (undergraduate)
Summer 2019	Peyton Kenyon (undergraduate)
Summer 2018 – present	Sylvie Martin-Eberhardt (undergraduate)

## SERVICE

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Fall 2020	EEB Colloquium Host for Dr. Zakee Sabree
Spring 2020	IU Biology Graduate Recruitment Host
Spring 2019	Student Hiring Advisory Committee for Dr. Cristina Landeta
Fall 2018	EEB Colloquium Host for Dr. Benjamin Wolfe

## PROFESSIONAL MEMBERSHIPS

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Spring 2020 – present	American Society for Microbiology (ASM)
Fall 2019 – present	Entomological Society of America (ESA)
Spring 2018 -2019	International Symbiosis Society (ISS)

## SOCIAL MEDIA AND PRESS

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March 2020	Article Feature, ASBMB Today <i>The bee microbiome can fight back against fungi that cause Colony Collapse Disorder.</i> <a href="https://www.asbmb.org/asbmb-today/science/032120/the-bee-microbiome-can-fight-back-against-fungi-th">https://www.asbmb.org/asbmb-today/science/032120/the-bee-microbiome-can-fight-back-against-fungi-th</a>
October 2019	Article Feature, Indiana Public Media <i>Beekeepers, Researchers, &amp; State Lawmakers Agree: We Need the Bees.</i> <a href="https://indianapublicmedia.org/news/beekeeping-taking-flight-in-indiana.php">https://indianapublicmedia.org/news/beekeeping-taking-flight-in-indiana.php</a>