

Katherine Krynak

Curriculum Vitae

Ohio Northern University
Biological and Allied Health Sciences
525 S. Main Street
Ada, OH 45810

www.katherinekrynak.weebly.com

Phone: 419-772-2335

Email: k-krynak@onu.edu

Current Positions

Associate Professor of Biology (Tenured 2021, Promoted 2022), School of Science Technology and Mathematics, Getty College of Arts and Sciences, Ohio Northern University, Fall 2016-present.

Assistant Director of Natural Areas, Ohio Northern University, Spring 2021-Present

Adjunct Professor of Biology, Department of Biology, Case Western Reserve University, September 2018-present.

Education

Postdoctoral Scholar, Case Western Reserve University/Cleveland Metroparks Zoo, August 2016

PhD. Biology, Case Western Reserve University, August 2015

B.S. Biology and Environmental Science Dual Major, University of Cincinnati, 1999

Fellowships, Research Grants, and Awards

Ohio Biological Survey Small grant award (2022)

Ohio Northern University Summer Research Grant (2022)

Ohio Northern University Dean's Research Grant (2020-2021)

Ohio Northern University Getty College of Arts and Sciences Professor of the Year (2020)

Founder's Day Fan nomination (2020)

Mortar Board Favorite Faculty (Alyssa Griffith-2020/O. Keserich-2019)

Ohio Northern University Dean's Research Grant (2019)

Ohio Northern University Summer Research Grant (2018)

Ohio Magazine Excellence in Education Honoree (Dean nominated; 2018)

Outstanding Professor of the Year: Department of Biological and Allied Health Sciences (2018)

Fullbright Early Career Fellowship: Ecuador (2016-17)

National Wrestling Coaches Association: Research Grant (2016)

National Science Foundation Graduate Research Program Fellowship (2011-2014)

EPA STAR (2011; declined to accept NSF GRFP Fellowship)

Cleveland Metroparks Zoo "Cans for Conservation" (2011)

Publications

- H. Vance*, H. Gill *, H. Goehring*, E. Gremling*, S. Churchin*, **K. Krynak**, K. Oswald, E. Imhoff, L. Riley, R. Verb (*In Preparation 2022 submission*). Prevalence of the microsporidian parasite *Thelohania contejeani* in crayfish across five Ohio watersheds. Ohio Biological Survey Notes.

Publications (continued)

- A.H. Loudon, K. Anderson, **K. Krynak**, Z. Yu, P.M. Dennis (*In Review*) Diet impacts the structure and function of the bacterial community in the gastrointestinal tract of a sloth bear. *Journal of Zoo and Aquarium Research*.
- P.M. Dennis, D.J. Burke, H.A. Strawn, E. Less, K. Anderson, A.H. Loudon, M. Raghanti, and **K. Krynak**. (*In Preparation 2022-23 submission*) The effect of meal size and feeding frequency on the behavior, physiology and gut microbiome of zoo-housed cheetahs (*Acinonyx jubatus*).
- **K. Krynak**, D. Wessels*, S. Imba, A. Loudon, E. Snyder, T. Krynak, J. Lyons, J. Guayasamin (2020) Call survey indicates rainbow trout farming alters glassfrog community composition in the Andes of Ecuador. *Amphibian and Reptile Conservation*. 14(2):1-11 (e234).
- **K. Krynak**, D. Wessels*, S. Imba, A. Loudon, E. Snyder, T. Krynak, J. Lyons, J. Guayasamin (2018) A preliminary assessment of the skin-associated bacterial microbiome of *Caecilia buckleyi* (Amphibia: Caeciliidae). *Herpetological Review*. 49(4): 690-693.
- M. Monson*, P. Dennis, K. Lukas, S. Kyker, **K. Krynak**, D. Burke, M. Schook (2018) Preliminary implications regarding the effects of increased hay to grain ratio on behavior, metabolism, and fecal microflora diversity in four Masai giraffe (*Giraffa camelopardalis tippelskirchi*). *Zoo Biology*. doi: 10.1002/zoo.21434
- L.M. Young, A. Davis*, B. Kohls*, H. Dyer*, **K. Krynak**, R. Beaschler, and V. Motz (2018) Clean hands- healthy wrestlers: Effectiveness of hand cleaning in reducing bacterial load during wrestling competitions. *Health Sciences Research*. ISSN: 2375-379X
- **K. Krynak**, D. Wessels, S. Imba, J. Lyons, J. Guayasamin (2018) Newly discovered bumpy glassfrog (*Centrolene heloderma*) population, with discussion of threats to population persistence. *CheckList: A Journal of Biodiversity Data*. doi: 10.15560/14.1.261
- A. Wagner*, A. LaValley*, **K. Krynak**, T. Krynak, E. Snyder (2017) *Anolis gemmosus* (Gem anole) Sleep Site Fidelity. *Herpetological Review*.
- **K. Krynak**, D. Burke and M. Benard (2017) Effects of Rodeo™ herbicide on *Acris blanchardi* and the relationship to amphibian disease resistance. *Journal of Herpetology*. doi: 10.1670/16-092
- **K. Krynak**, D. Burke, R. Martin, and P. Dennis (2017). Gut microbiome composition is associated with cardiac disease in captive western lowland gorillas (*Gorilla gorilla gorilla*). *FEMS Microbiology Letters*. doi:10.1093/femsle/fnx149
 - *This research was featured in The Atlantic*
- **K. Krynak**, D. Burke and M. Benard (2016) Landscape and water characteristics correlate with immune defense trait differences across Blanchard's cricket frog (*Acris blanchardi*) populations. *Biological Conservation*. DOI: 10.1016/j.biocon.2015.11.019
- **K. Krynak**, D. Burke and M. Benard (2015) Larval environment alters amphibian immune defenses differentially across life stages and populations. *PLOS ONE*. DOI:10.1371/journal.pone.0130383.

Publications (continued)

- J. Guayasamin, T. Krynak, **K. Krynak**, J. Garcia, and C. Hutter. (2015) Phenotypic plasticity raises questions for taxonomically important traits: a remarkable new Andean rainfrog (*Pristimantis*) with the ability to change skin texture. *Zoological Journal of the Linnean Society*. 174(4):913-928. DOI:10.1111/zoj.12222
 - *This discovery was featured in the popular press including New York Times, National Geographic, Wired Magazine, PBS, Ranger Rick, Discovery and numerous others.*
- **K. Krynak**, R. Oldfield, P. Dennis, M. Durkalec, and C. Weldon. (2015) A novel field technique to assess ploidy in introduced Grass Carp (*Ctenopharyngodon idella*, Cyprinidae) Biological Invasions. DOI:10.1007/s10530-015-0856-9
 - *This paper was featured in FishSens Magazine and on Phys.org*
- K. Dananay, **K. Krynak**, T. Krynak, and M. Benard. (2015) Legacy of road salt: apparent positive larval effects counteracted by negative post-metamorphic effects in wood frogs. *Environmental Toxicology and Chemistry*. DOI: 10.1002/etc.3082.
**denotes student author*

Selected Professional Presentations (*presenter)

- H. Vance*, H. Gill , H. Goehring*, E. Gremling, **K. Krynak**, K. Oswald, E. Imhoff, L. Riley, R. Verb (2022). Prevalence of the microsporidian parasite *Thelohania contejeani* in crayfish across five Ohio watersheds. Society of Freshwater Sciences. *Poster Presentation*.
- R. Lehtinen, John McCall **K. Krynak** (2021) Long-term monitoring data on Blanchard's cricket frog in northwestern Ohio Midwest PARC's Virtual Annual Conference: Changes in Amphibian and Reptile Populations Throughout the Midwest. (virtual) *Poster Presentation*.
- E. Naugle, **K. Krynak***, L. Riley, C. Spiese, and R. Verb. (August 2021) Unintended consequences of mitigating agricultural run-off: changes to symbiotic bacterial communities of resident isopods. Ecological Society of America annual meeting. Longbeach California (virtual) *Poster Presentation*.
- E. Snyder*, D. Wessels, **K. Krynak**, E. Krynak, A. Harris. (*Abstract accepted- Conference Postponed until 2021*). The impact of non-native rainbow trout (*Oncorhynchus mykiss*) on Ecuadorian mountain streams. Wild Trout Symposium. West Yellowstone, Montana. *Poster Presentation*.
- **K. Krynak***, D. Wessels, E. Krynak, A. Encalada, E. Snyder. (August 2019). Stream bacterial community structure and function as related to trout farming in the Ecuadorian Andes. Ecological Society of America annual meeting. Lexington, Kentucky. *Poster Presentation*
- D. Wessels*, **K. Krynak**, E. Krynak, A. Encalada, E. Snyder. (January 2019) Evaluating impacts of rainbow trout farming on macroinvertebrates in neotropical streams in Ecuador. Midwest Fish & Wildlife Conference. *Podium Presentation*.
- **K. Krynak*** (September 2018) Gorilla poo, frog goo, and the fascinating world of microbial ecology. Case Western Reserve University. Cleveland, Ohio. *Invited Talk*.
- **K. Krynak*** (October 2017) Getting by with a little help from their bacterial friends: relationships between wildlife health and their microbiome. College of Wooster. Wooster, Ohio. *Invited Talk*.

Selected Professional Presentations (continued)

- **K. Krynak***, S. De La Serna, M. Dugas, D. Burke, P. Dennis, R. Martin (August 2017) Trophic morphology predicts microbiome composition in a developmental resource polymorphism. Ecological Society of America. Portland, Oregon. *Poster presentation.*
- **K. Krynak***, D. Burke, and M. Benard. (November 2016) Practically non-toxic? Effects of Rodeo™ herbicide on *Acris blanchardi* across life stages. Integrated Research Challenges in Environmental Biology meeting. Arizona State University. Tempe, Arizona. *Podium presentation.*
- **K. Krynak***, D. Burke and M. Benard. (March 2015) Landscape and water characteristics correlate with immune defense trait differences across Blanchard's Cricket frog (*Acris blanchardi*) populations. Early Career Scientists Symposium, University of Michigan. Ann Arbor, Michigan. *Poster presentation.*
- **K. Krynak***, D. Burke and M. Benard. (August 2014) Are amphibian skin associated microbial communities regulated by the host, the external environment, or both? Ecological Society of America. Sacramento, California. *Podium presentation.*
- **K. Krynak*** (January 2014) It's not easy being green: Effects of environmental change on amphibian immune defense traits. Brown Bag Lecture Series. Cleveland Museum of Natural History. Cleveland, Ohio. *Invited Talk.*
- **K. Krynak***, D. Burke, M. Benard. (March 2014) Practically non-toxic to aquatic organisms? The effects of Rodeo herbicide on Northern Cricket Frogs (*Acris crepitans*). Ohio Biological Survey Natural Resources Conference. Columbus, Ohio. *Poster Presentation.*
- **K. Krynak***(November 2013) Effects of environmental change on amphibian immune defense traits. Biology Departmental Seminar Series. John Carroll University. Cleveland, Ohio. *Invited Talk.*

Professional Student Poster Presentations (*denotes student author; does not include ONU Research Colloquium presentations)

- E. Gremling*, S. Churchin* J. Cira*, T. Koncsol*, L. Riley, R. Verb, E. Imhoff, **K. Krynak**, K. Oswald. (2021) Prevalence of fungal pathogen *Thelohania contejeani* in crayfish across Ohio watersheds. Society for Freshwater Science annual meeting. (virtual) *Poster Presentation.*
- H. Belisle*, J. Cira*, E. Gremling*, L. Jones*, **K. Krynak**, K. Oswald, E. Imhoff, L. Riley, R. Verb (2020) Detection of Porcelain Disease in Ohio Crayfish. Ohio Natural History Conference. Toledo, Ohio.
- E. Naugle*, **K. Krynak**, L. Riley, C. Spiese, R. Verb (2019) Unintended Consequences Of Mitigating Agricultural Run-Off: Changes To Symbiotic Bacterial Communities Of Resident Isopods. Water Management Association of Ohio annual meeting. Columbus, Ohio.
- I. Smith*, C. Kasler, P. Zoladz, **K. Krynak** (2019) Rodent model of PTSD and accompanied changes in the gut-associated microbiome. Society for Neuroscience. Chicago, Illinois.
- A. Milks*, K. Hill*, B. Logsdon*, K. Konchar, S. Brooke, **K. Krynak**. (2019) Assessing host-symbiont relationships to inform restoration efforts of eastern oysters (*Crassostrea virginica*) in the Gulf of Mexico. Ecological Society of America. Lexington, Kentucky

Student Poster Presentations (continued)

- A. Milks*, K. Hill*, B. Logsdon*, K. Konchar, S. Brooke, **K. Krynak**. (2019) Assessing host-symbiont relationships to inform restoration efforts of eastern oysters (*Crassostrea virginica*) in the Gulf of Mexico. Holden Arboretum Summer Research Symposium. Cleveland, Ohio. (A. Milks* awarded 1st place for her poster presentation!)
- E. Naugle*, **K. Krynak**, L. Riley, C. Spiese, R. Verb (2019) Unintended Consequences Of Mitigating Agricultural Run-Off: Changes To Symbiotic Bacterial Communities Of Resident Isopods. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- P. Goodwin*, O. Keserich*, E. Kuerbitz, P. Dennis, **K. Krynak** (2019) Changes In Day-Light Intensity Alters Gut Bacterial Microbiome Of Zoo-Housed Pottos. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- K. Kelly*, J. Lyons, **K. Krynak** (2019) Lepidopteran Diversity As A Function Of Habitat Disturbance At Reserva Las Gralarias, Ecuador. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- L. Waggoner*, T. Krynak, K. Becka, J. Lyons, **K. Krynak** (2019) Habitat Assessment of the Andean Catfish (*Astroblepus sp.*) at Reserva Las Gralarias: Province of Pichincha, Ecuador. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- H. Vance*, J. Lyons, **K. Krynak** (2019) Sleep site characteristics of Gem Anoles (*Anolis gemmosus*) in the Province of Pichincha, Ecuador. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- I. Smith*, P. Zoladz, P. Dennis, and **K. Krynak** (2018) How does the enteric microbiome change in response to anxiolytics? A case study of a Zoo-housed Allen Swamp Monkey. Holden Arboretum Summer Research Symposium. Cleveland, Ohio.
- H. Dyer*, A. Davis*, B. Peters*, R. Beaschler, L. Young, V. Motz and **K. Krynak** (2018) Assessment of cleaning product efficacy on collegiate wrestling mats. Ohio Academy of Sciences. Bowling Green, Ohio.
- E. Naugle*, A. Griffith*, H. Dyer*, E. Less, K. Lukas, P. Dennis, and **K. Krynak** (2018) Diet the gut microbiome, and the heart of *Gorilla gorilla gorilla*. Ohio Academy of Sciences. Bowling Green, Ohio.
- C. Scales*, J. Heenan*, D. Swisher*, and **K. Krynak** (2018) Environmental influences on microbial community composition of blue crabs (*Callinectes sapidus*). Ohio Academy of Sciences. Bowling Green, Ohio.
- O. Keserich*, T. Tanto*, E. Kuerbitz, P. Dennis, and **K. Krynak** (2018) Does day-light intensity alter melatonin production or the gut associated bacterial microbiome of zoo-housed pottos? Ohio Academy of Sciences. Bowling Green, Ohio.
- L. Govekar*, S. Beery*, S. Drelishak*, and **K. Krynak** (2017) Culture-based comparison of bacterial community composition across three Gulf Coast crab species. Ohio Academy of Sciences. Cincinnati, Ohio.

Teaching & Mentoring Experience

Fall 2016-Present: *Assistant Professor of Biology:* Ohio Northern University

- Teaching: Introductory Biology (Lecture/Lab; BIOL1311/1321/1201/1401), Freshwater Ecology (Lecture/LabBIOL3741), Field Skills for Biologists (Field Course; BIOL3731), Cell Biology (Lecture BIOL3511), Marine and Coastal Conservation (Field/Research Course; BIOL3701), Microbiology (Lab; BIOL3111), Herpetology (Lecture/Lab; BIOL3641); Conservation (TREX1001); Tropical Biodiversity conservation (BIOL2601), Geology Lab (GEOL2811); Natural History Lab (BIOL2131); Independent Research (4971), ENFB Capstone (BIOL4871), Biology Capstone (BIOL4861), Internship in Environmental and Field Biology (BIOL4771).
- Mentoring undergraduate students in research and research presentation including field skills, molecular ecology techniques, and data analysis using MOthur and R, and Poster/Podium presentations. (Haley Goehring, Hannah Gill, Joey Lepard, Steven Churchin, Greg Brown, Holly Dyer, Elizabeth Naugle, Olivia Keserich, Tyler Tanto, Gunner Stall, Alyssa Griffith, Ian Smith, Dakota Swisher, Julia Heenan, Aly Milks, Kelli Hill, Logan Waggoner, Kaity Kelly, Elizabeth Naugle, Paige Goodwin, Lydia Archambo, Ian Smith, Lukas Jones, Hannah Vance, Emily Gremling, John Cira, Haley Belisle)
- Capstone Mentor: Elizabeth Naugle, Tyler Tanto, Alyson Milks, Olivia Keserich, Lydia Archambo, Emily Gremling, Tyler Koncsol, Steven Churchin, Hannah Vance, Makaiiah Thomas, Morgan Blair.

Summer 2018, 2020: *Summer Academic Honors Institute, Molecular Ecology Co-Instructor:* Ohio Northern University

- Co-instructed a week-long Molecular Ecology summer camp for high school students. 2018: Students conducted field sampling of sunfish scale-associated microbial communities, and collected fin clips for population genetics studies. Students utilized traditional microbiology and molecular techniques in the laboratory, and were introduced to statistical analysis in R. Student created and presented posters to family and friends on the final day. 2020: Students to assess the presence of Porcelain disease in Ohio crayfish. Students will collect field samples, will learn laboratory techniques including DNA extraction, PCR, agarose gel electrophoresis. Students will create and present posters to family and friends on the final day.

Summer 2017-Summer 2019:

- Mentored graduate student Dana Wessels of Grand Valley State University, MI. Thesis: Saving Streams in the Neotropical Cloud Forest: Evaluating the Impacts of Rainbow Trout (*Oncorhynchus mykiss*) Farming on Invertebrates and Glassfrogs. *Dana successfully defended her thesis summer 2019.*

Fall 2018-present: *Adjunct Professor of Biology:* Case Western Reserve University

- Mentors graduate students of CWRU and Cleveland Metroparks Zoo in eco-immunology; assessing relationships between symbiotic bacterial communities and zoo-housed host health and behavior.
 - Graduate Student Qualifying Exam Committee member (*Kaylin Tenant successfully passed her qualifying exams summer 2019*)

Summer 2017: Biorefresher Co-Instructor (cells and molecules)

Teaching & Mentoring Experience (continued)

Spring 2016 & 2014: *Tropical Ecology and Conservation (Bio417/NRM407)* Co-instructor, Adjunct Professor: Grand Valley State University

- Co-instructs and serves as natural history guide, providing undergraduate students with the experience of conducting biological research on the diverse taxa of the Andean Cloud-forest at Reserva Las Galarias, Ecuador.

Spring 2016 & 2015:

- Mentored graduate student Anna Harris of Grand Valley State University, MI. Project: Amphibian conservation (Centrolenidae) in neotropical cloud-forest streams using stable isotopes to measure energy subsidies. *Anna successfully defended her thesis Dec. 2016.*
- Mentored graduate student Michael Monson of Cleveland State University in assessment of gut microbiome analyses of captive Masai Giraffes from Cleveland Metroparks Zoo.
 - See publication resulting from this work.

Spring 2015: *Cells and Proteins Laboratory (Biol 215)* Graduate Teaching assistant: Case Western Reserve University

- Grading and recitation instructor for this introductory course; teaching manuscript preparation during recitation sections; grading laboratory reports.

Fall 2014 & 2010: *Herpetology (Biol 305)* Graduate Teaching Assistant: Case Western Reserve University

- Laboratory instructor teaching in the classroom as well as in the field, developing laboratory teaching materials, preparing specimens, grading, and proctoring exams.

Summer 2014: *Undergraduate research mentor:* The Holden Arboretum/Kent State University

- Mentored Kent State undergraduate student (Alexa Wagner) with two molecular research studies culminating in presentation of two posters at The Holden Arboretum's annual Summer Internship Symposium.

Spring 2011: *Ichthyology (Biol 338/438)* Graduate Teaching Assistant: Case Western Reserve University

- Assisted in teaching hands-on field and museum components of the course, preparing specimens, grading, and proctoring exams.

Outreach Activities/Community Service

- 2022 Captive Breeding Program initiated at ONU for the State Endangered Plains Garter Snake (*Thamnophis radix*).
- 2022 Bluffton Highschool Field research: Stream sampling (electrofishing, physical chemistry assessment, porcelain disease surveillance and sample collection)
- 2021 Co-coordinated an ongoing fen restoration at program Blue Heron Nature Preserve between ONU and Sandusky Co Park District. Highlighted in numerous venues including the [Toledo Blade](#).
- 2019 Sandusky Co Park District Certified Volunteer Naturalist. Invited Instructor (*assisted by students Tyler Tanto, Lydia Archambo, and Emily Gremmling*)
- 2019 Sierra Club (Rainforest Committee). Invited Talk.
<https://www.neosierragroup.org/meetings/>

Outreach Activities/Community Service (continued)

- 2019, 2018, 2017, 2016 Wakulla Springs LIFE program teaching assistant (Field semester students teach local elementary students about the ecology of Wakulla Springs and the cypress dome during Marine Biology BIOL3701).
- 2018 Manitoulin Expositor. [Grass carp studies divide expert opinions](#)
- 2018 The Atlantic. [Something Mysterious is killing captive gorillas.](#)
- 2017 NPR Sound of Ideas/Science Café Cleveland: [Forest Microbiome and Species Conservation](#). Co-presenter D. Burke.
- 2017 [Of Herps and Punks](#). Sandusky County Park District's Meet the Scientist lecture series. Wilson Nature Center.
- 2016 [FiveThirtyEight](#). Provided support/material for an article on Valerie McKenzie's microbial ecology work.
- 2016 [National Geographic](#). Provided support/material for a story covering the discovery of a new Peruvian amphibian species.
- 2015 #PunkRockFrog viral campaign in partnership with the Amphibian Survival Alliance; Highlights the need for habitat protection in response to newly described shape-shifting frog species, *Pristimantis mutabilis* DOI: 10.1111/zoj.12222
- 2014 The Holden Arboretum Leaves Magazine. Authored a popular science style article titled: *It's not easy being green: The effects of environmental change on amphibians.*
- 2013 and 2014 Educational workshop for Painesville City Schools at The Holden Arboretum: assisted with instructional exercises aimed at introducing middle school students to the ideas of soil microbiota and how scientists estimate diversity and richness in soil communities.
- 2013 Science In Action- Cricket Frogs: Guest lecturer of a family program for Wood County Park District regarding my studies of Cricket Frog immune defenses.
- 2009-2011 Environmental Heroes: Guest lecturer instructing middle school students how to quantitatively sample wetlands for amphibians.
- 2008 [National Geographic](#): worked with Senior Writer Jennifer Holland and Photographer Joel Sartore in Ecuador on an article published in 2009 regarding the global amphibian crisis as well as footage for their website.
- 2008 Jason Project: Distance Learning programs for hundreds of local elementary school children discussing the implications of global amphibian declines and what children can do to help conserve amphibians.
- 2008 Year of the Frog: Performed biweekly public talks regarding amphibian conservation for various organizations throughout the Cleveland area and co-authored text for the educational website (<http://www.clemetzoo.com/forfrogs>).
- 2005-2009 Las Gralarias Foundation: Co-editor of the foundation's newsletter "The Hum..." Currently (2005-present) writes articles for each edition of "The Hum..." as well as LGF's new short communication "The Chirp".
- 2005-2009 Annual invited guest instructor Escuela Rio Tumbes elementary school, Ecuador.

Independent International Conservation Efforts

2005-Present: Founding Board Member, Secretary, Research Coordinator, Biologist, Social Media administrator: Las Gralarias Foundation, Inc.

- Co-coordinates scientific research conducted at Reserva Las Gralarias (RLG), Ecuador.
- Co-organizes fundraising programs, presentations, marketing, and publication of the organization's newsletter "The Hum..." which can be viewed at www.lasgralariasfoundation.org.

2002-2006: Project Golden Frog: Field volunteer, Panama

- Assisted in field expeditions in search of *Atelopus varius* and *A. zeteki* populations in the tropical forests of Panama, data/sample collection for Smithsonian Tropical Research Institution, construction of and care of animals at El Valle Amphibian Conservation Center

Professional Memberships, Activities, and Service

- Membership: Phi Beta Delta Honor Society for International Scholars, Sigma Xi, Society for the Study of Amphibians and Reptiles, Herpetologists' League, Ecological Society of America
- 2020-2011 Manuscript reviewer for *Biological Conservation*, *Conservation Physiology*, *Microbial Ecology*, *Journal of Herpetology*, *Diseases of Aquatic Organisms*, *Herpetological Review*, *The Open Microbiology Journal*
- 2018 Partners in Amphibian and Reptile Conservation, PARCA collaborator
- 2018 E.E. Williams Research Grant judge for Herpetologist's League
- 2018 District Science Day judge. District 6. Ohio Academy of Sciences.
- 2013 Cleveland Metroparks Zoo- Conservation Endowment Fund grant reviewer
- 2013 SOURCE program application reviewer for Case Western Reserve University
- 2011 Poster judge for Case Western Reserve University Intersections undergraduate poster competition

University/College/Departmental Service

- School of STM Working Group Coordinator (2020): First Year(s) experiences
- Committee on Academic Qualifications (2019-2020)
- TREX Revamp committee (2019)
- Heterick Memorial Library Repository Committee (2019)
- Assessment committee *assistant*: (2018-present) ENFB/Biology/Molecular Biology
- Co-manager of the Environmental and Field Biology FaceBook page. <https://www.facebook.com/EnvironmentalandFieldBiology/>
- Ohio Northern University Fulbright Committee (2018-2019)
- 2017-present Ohio Northern University Institutional Repository committee
- 2016-present Ohio Northern University Biology Department Scheduling Committee, Biology Department Assessment Committee

Previous Employment

Spring 2009- Summer 2010: Research Assistant: Benard Laboratory, Case Western Reserve University

- Assisted PI in studies of amphibian ecology including large scale mesocosm studies, quantitative pond sampling, data analysis in ARC GIS, specimen identification, and presentation of research.

2001- 2008: Animal Keeper: Cleveland Metroparks Zoo

- Responsible for general care, husbandry, exhibit design and construction for a diverse group of animals within the facility's RainForest as well as specialized exhibits throughout the park.
- Conducted research studying innate immune defense traits of Panamanian Golden Frogs in collaboration with Dr. Brandon Sheafor, Dr. Jonathan Scott and their undergraduate student researchers of Mount Union College.
- Extensive field work in association with Project Golden Frog/Atelopus Conservation Trust, Smithsonian Tropical Research Institute in Panama, and El Valle Amphibian Conservation Center in Panama.
- Co-creator of the "Leap into Action", a local amphibian conservation initiative designed to increase public awareness of the global amphibian crisis and wetland conservation. \$17,000 was raised for vernal pool construction and amphibian conservation research in Cleveland Metroparks. Awarded The 2009 Apex *Grand Award* for Publication Excellence (category: Campaigns, Programs & Plans).
- Mentored Auburn Career Center high school students in the creation of a short animated film called *Leap into Action: Solving the Amphibian Crisis* (<http://www.youtube.com/watch?v=p5d33bJpPw0>)
- Distance Learning speaker for Cleveland Metroparks Zoo conservation education department.