KAYLEE S. HERZOG, PH.D.

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EDUCATION

University of Nebraska Medical Center College of Public Health, Omaha, NE Jun 2022–present
Postdoctoral Research Associate, Department of Epidemiology | Dr. Joseph Fauver

University of Kansas, Lawrence, KS May 2022
Ph.D. Ecology and Evolutionary Biology, Honors | GPA: 4.00 | Dr. Kirsten Jensen

University of Kansas, Lawrence, KS Aug 2016
M.A. Ecology and Evolutionary Biology, Honors | GPA: 3.96 | Dr. Kirsten Jensen

State University of New York College at Oneonta (SUNY Oneonta), Oneonta, NY May 2014
B.Sc. Biology, Suma Cum Laude | Cumulative GPA: 3.94 | Major GPA: 3.96 | Dr. Florian Reyda

PEER-REVIEWED PUBLICATIONS

2024 **Herzog, K.S.,** R. Wu, J.M. Hawdon, P. Nejsum, and J.R. Fauver. Assessing *de novo* parasite genomes assembled using only Oxford Nanopore Technologies MinION data. *iScience* 27(110614). DOI:10.1016/j.isci.2024.110614

2024 Vogels, C.B.F., V. Hill, M.I. Breban, C. Chaguza, L.M. Paul, A. Sodeinde, E. Taylor-Salmon, I.M. Ott, M.E. Petrone, D. Dijk, M. Jonges, M.R.A. Welkers, T. Locksmith, Y. Dong, N. Tarigopula, O. Tekin, S. Schmedes, S. Bunch, N. Cano, R. Jaber, C. Panzera, I. Stryker, J. Vergara, R. Zimler, E. Kopp, L. Heberlein, **K.S. Herzog**, J.R. Fauver, A.M. Morrison, S.F. Michael, and N.D. Grubaugh. DengueSeq: A pan-serotype whole genome amplicon sequencing protocol for dengue virus. *BMC Genomics* 25(433). 16 pp. DOI: 10.1186/s12864-024-10350-x

2023 **Herzog, K.S.,** J.L. Hackett, P.M. Hime, L.B. Klicka, and K. Jensen. First insights into population structure and genetic diversity versus host specificity in trypanorhynch tapeworms using multiplexed shotgun genotyping. *Genome Biology and Evolution*. 15(10), evad190. DOI: 10.1093/gbe/evad190

2023 **Herzog, K.S.**, J.N. Caira, P.K. Kar, and K. Jensen. Novelty and phylogenetic affinities of a new family of tapeworms (Cestoda: Rhinebothriidea) from endangered sawfish and guitarfish. *International Journal of Parasitology* 53(7), 347–362. DOI: 10.1016/j.ijpara.2023.02.007

2022 **Herzog, K.S.** and K. Jensen. A synergistic, global approach to revising the trypanorhynch tapeworm family Rhinoptericolidae (Trypanobatoida). *PeerJ Life & Environment* 10:e12865, 83 pp. DOI: 0.7717/peerj.12865

2021 **Herzog, K.S.**, R.S. Meininger, and F.B. Reyda. A new species of tapeworm in the genus *Stillabothrium* (Rhinebothriidea: Escherbothriidae) from a stingray from Borneo. *Comparative Parasitology* 88(1), 34–40. DOI: 10.1654/1525-2647-88.1.34

2018 **Herzog, K.S.** and K. Jensen. Five new species of the tapeworm genus *Anthocephalum* (Rhinebothriidea: Anthocephaliidae) parasitizing a single species of Indo-Pacific stingray and a revised diagnosis of the genus. *Journal of Parasitology* 104(5), 505–522. DOI: 10.1645/18-53

2017 Jensen, K., J.J. Cielocha, **K.S. Herzog**, and J.N. Caira. Lecanicephalidea. In: *Planetary Biodiversity Inventory: Tapeworms from the Vertebrate Bowels of the Earth (2008–2016).* Caira, J.N. and K. Jensen (eds). University of Kansas Natural History Museum Special Publication No. 25. Lawrence, KS: pp. 189–210.

PEER-REVIEWED PUBLICATIONS (CONTINUED)

2017 **Herzog, K.S.** and K. Jensen. A new genus with two new species of lecanicephalidean tapeworms (Cestoda) from the spotted whipray *Urogymnus granulatus* (Myliobatiformes: Dasyatidae) from the Solomon Islands and Northern Australia. *Folia Parasitologica* 64(004): 12 pp. DOI: 10.14411/fp.2017.004

2016 Reyda, F.B., C.J. Healy, A.R. Haslach, T.R. Ruhnke, T.L. Aprill, M.P. Bergman, A.L. Daigler, E.A. Dedrick, I. Delgado, K.S. Forti, **K.S. Herzog**, R.S. Russell, and D.D. Willsey. A new genus of rhinebothriidean cestodes from batoid elasmobranchs, with the description of five new species and two new combinations. *Folia Parasitologica* 63(038): 28 pp. DOI: 10.14411/fp.2016.038

2016 Simões, M., L. Breitkreuz, M. Alvarado, S. Baca, J.C. Cooper, L. Heinz, **K. Herzog** and B.S. Lieberman. The evolving theory of evolutionary radiations. *Trends in Ecology and Evolution* 31(1): 27–24. DOI: 10.1016/j.tree.2015.10.007

TECHNICAL REPORTS

2013 **Herzog, K.**, R. Russell and F. Reyda. An examination of the morphological diversity within a new genus of tapeworm from stingrays (Class: Cestoda). *Biological Field Station of Cooperstown, NY 46th Annual Report, 2013:* 135–140.

2013 Yoo, A., **K. Herzog** and H. Waterfield. Aquatic invasive species present in Otsego County, NY water bodies. *Biological Field Station of Cooperstown, NY 46th Annual Report, 2013:* 75–95.

GRANTS, FELLOWSHIPS & FUNDING AWARDS

$3,435,880 **National Institutes of Health Research Project Grant R01 | 2024**
"Genomic approaches to define hookworm population diversity and deworming drug response" PI: M. Cappello, Yale School of Public Health | Project no. 1R01AI182301-01
Listed as Key Personnel. Contributed significantly to developing experimental design, writing specific aims and research strategy, and generating figures and tables.

$180,000 **University of Kansas Madison & Lila Self Graduate Fellowship | 2017–2021**
Self Graduate Fellows are selected based on their academic ability and achievements, leadership attributes, vision, and motivation to make significant contributions in their fields and in society.

$2,315 **American Museum of Natural History Lerner-Gray Memorial Fund Grant for Marine Research | 2019**
"First insights into population structure in marine tapeworms" by K.S. Herzog

$1,470 **University of Kansas Graduate Studies Doctoral Student Research Fund | 2017**
"Coevolution Between Trypanorhynch Tapeworms and Their Elasmobranch Hosts" by K.S. Herzog

$9,000 **University of Kansas Department of Ecology & Evolutionary Biology and Biodiversity Institute Summer Funding Fellowship | 2015–2017**
Applied for and awarded annually in $3,000 installments to fund research efforts during summer semesters

$500 **University of Kansas Office of Graduate Studies and Office of Research Graduate Scholarly Presentation Travel Fund | 2017**

GRANTS, FELLOWSHIPS & FUNDING AWARDS (CONTINUED)

$350	**University of Kansas Department of Ecology & Evolutionary Biology Graduate Travel Award	2017**
$400	**American Society of Parasitologists Marc Dresden Student Travel Award	2017**
$250	**University of Kansas Department of Ecology & Evolutionary Biology Graduate Student Organization Travel Award	2015**
$500	**Caroline & David D'Antonio Undergraduate Student Travel Fund	2013**
$1,808	**SUNY Oneonta Student Grant Program for Research and Creative Activity	2013** "Description of a New Tapeworm Species from the Whitenose Whip Ray of Borneo" by K.S. Herzog, R. Russell and F. Reyda
$100	**SUNY Oneonta Dr. Gary Holway Scientific Achievement Award	2013** Awarded for grant proposal "Description of a New Tapeworm Species from the Whitenose Whip Ray of Borneo" by K.S. Herzog, R. Russell and F. Reyda
$400	**Caroline & David D'Antonio Undergraduate Student Travel Fund	2012**

HONORS & AWARDS

2024	**Ashton Cuckler New Investigator Award**	American Society of Parasitologists
2023	**Young Investigator Award**	American Society of Tropical Medicine and Hygiene
2021	**Kenneth B. Armitage Award for Excellence in Teaching**	University of Kansas | BIOL 428
2021	**David A. Becker Best Student Paper Award**	Southwestern Association of Parasitologists
2018	**Community Collaborator Award**	Girl Scouts of America; awarded jointly
2017	**Outstanding Student Paper Award**	American Society of Parasitologists
2015	**Student Paper Award Honorable Mention**	Southwestern Association of Parasitologists
2014	**SUNY Chancellor's Award for Student Excellence**	SUNY Oneonta
2014	**Foundation Award for Excellence in Student Research & Creative Activity**	SUNY Oneonta
2014	**Student Outstanding Service Award**	SUNY Oneonta
2014	**Biology Senior Merit Scholar**	SUNY Oneonta
2014	**Jan Kee Ang Award**	SUNY Oneonta
2014	**Academic Achievement Award for Biology**	SUNY Oneonta
2013	**Best and Brightest Award**	SUNY Oneonta
2013	**Academic Achievement Award for Biology**	SUNY Oneonta

PRESENTATIONS

2025 Phylogenetic analysis of North America species of Family Neoechinorhynchidae. F. Reyda (presenter). **K. Herzog**, and M. Fleming. Oral presentation given at the 11th International Symposium on Fish Parasites, Merida, Mexico.

PRESENTATIONS (CONTINUED)

2024 Characterizing genetic diversity and population structure of human hookworms using whole genome data from accessible sample types. **K.S. Herzog**, L.M. Harrison, M.D. Wilson, M. Cappello, and J.R. Fauver. Poster presented at the 2024 meeting of the American Society of Tropical Medicine and Hygiene, New Orleans, LA.

2024 Explaining the variability in West Nile Virus CT values from mosquito pools and their implications for human risk. I. Marchinton, **K. Herzog**, S. Chandler, and J. Fauver. Poster presented at the Midwest Public Health Innovation and Research Expo, University of Nebraska Medical Center, Omaha NE.

2024 Genomic epidemiology informs transmission dynamics of West Nile Virus outbreaks in Nebraska. S. Chandler, **K. Herzog**, D. Gurung, I. Marchinton, S. Uhm, S. Vaughan, M. Wiley, and J. Fauver. Poster presented at the University of Nebraska Medical Center 2024 Summer Research Symposium, Omaha, NE.

2024 Sequencing mosquito bloodmeals to evaluate risk of West Nile Virus transmission. D. McCormick, **K. Herzog**, H. Smith, J. Hamick, and J. Fauver. Poster presented at the University of Nebraska Medical Center 2024 Summer Undergraduate Research Program Poster Session, Omaha, NE.

2024 Principal, intercalary, or "extra" hooks: *Proemotobothrium* woes. **K.S. Herzog** and K. Jensen (presenter). Oral presentation given at the Southwestern Association of Parasitologists 2024 Annual Meeting, Kingston, OK.

2024 Characterizing genetic diversity and population structure of human hookworms using whole genome data from accessible sample types. **K.S. Herzog**, L.M. Harrison, M.D. Wilson, M. Cappello, and J.R. Fauver (presenter). Oral presentation given at the Southwestern Association of Parasitologists 2024 Annual Meeting, Kingston, OK.

2023 Benchmarking an accessible method for generating complete genomes from parasitic nematodes. **K.S. Herzog** and J.R. Fauver. Poster presented at the 2023 meeting of the American Society of Tropical Medicine and Hygiene, Chicago, IL.

2023 Progress in cestode systematics and phylogeny: Trypanorhyncha. **K.S. Herzog**. Oral presentation given at the 2023 meeting of the International Workshop on Cestode Systematics and Phylogeny, Warsaw, Poland.

2023 A novel approach to sequencing West Nile Virus genomes using IDT xGen and Illumina MiniSeq. D. Gurung, J. Fauver and **K. Herzog**. Poster presented at the University of Nebraska Medical Center 2023 Summer Undergraduate Research Program Poster Session, Omaha, NE.

2023 A. Butz (presenter), S. Uhm, T. Mohammed, B. Erko, M. Aemero, A. Mengist, J. Fauver and **K. Herzog**. Determining *Schistosoma haematobium* population structures in Ethiopia. Poster presented at the University of Nebraska Medical Center 2023 Summer Undergraduate Research Program Poster Session, Omaha, NE.

2023 Benchmarking Q20+ ONT MinION long-read sequence data for generate reference-quality genomes for parasitic nematodes. **K.S. Herzog** (presenter) and J.R. Fauver. Oral presentation given at the American Society of Parasitologists 2023 Annual Meeting, Kansas City, MO.

PRESENTATIONS (CONTINUED)

2023 One worm, one genome: Using the ONT MinION sequencing platform to generate a reference-quality genome for the filarial nematode *Brugia malayi*. **K.S. Herzog** (presenter) and J.R. Fauver. Oral presentation given at the Southwestern Association of Parasitologists 2023 Annual Meeting, Kingston, OK.

2022 First Assembly of a *Necator americanus* genome from an isolate in Ghana. J.R. Fauver, **K.S. Herzog**, L.M. Harrison, E. Allen, D. Osabutay, M.D. Wilson and M. Cappello. Poster presented at the 2022 meeting of the American Society of Tropical Medicine and Hygiene, Seattle, WA.

2022 First insights into population genomic structure for marine tapeworms of elasmobranchs: The interplay between host species, geography, and host specificity. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the 2022 meeting of the International Congress of Parasitologists, Copenhagen, Denmark.

2022 Hooks, hosts, and haplotypes: A deep dive on the biology of a marine tapeworm. Invited to present a virtual oral presentation at the No Bones seminar, Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution.

2021 Population genomic structure in marine tapeworms: The importance of host species versus geographic locality. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the 2021 virtual meeting of the American Society of Parasitologists.

2021 Host specificity and population genomics in marine tapeworms (Eucestoda: Trypanorhyncha). **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the 2021 virtual meeting of the Southwestern Association of Parasitologists.

2020 Old worms, new tricks: Using tapeworms of sharks to ask evolutionary questions. Invited to speak to undergraduate biology students at Baker University, Baldwin City, KS.

2019 The "Rhinoptericolidae" revisited: Less host specific, more diverse, and more broadly distributed than previously assumed. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the American Society of Parasitologists 2019 Annual Meeting, Rochester, MN.

2019 Old worms, new tricks: Testing assumptions in an unusual group of tapeworms of cownose rays. One of four invited speakers at the University of Kansas Graduate Red Hot Research Symposium No. 9, Lawrence, KS.

2018 Trypanorhynchs from Batoids of Mozambique. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the American Society of Parasitologists 2018 Annual Meeting, Cancun, Mexico.

2018 Tackling the trypanorhynchs: The challenges of treating one of the "most chaotic" orders of cestodes. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at Southwestern Association of Parasitologists 2018 Annual Meeting, Kingston, OK.

2017 The tapeworm fauna of the giant devilray (*Mobula mobular* [Bonnaterre]): A trans-Pacific distribution. **K.S. Herzog** and K. Jensen. Poster presented at the 9th International Workshop on Cestode Systematics and Phylogeny, Rostock, Germany.

2017 An unusually high number of new species of *Anthocephalum* (Rhinebothriidea: Anthocephaliidae) parasitizing a single species of Indo-Pacific stingray host. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the American Society of Parasitologists 2017 Annual Meeting, San Antonio, TX.

PRESENTATIONS (CONTINUED)

2017 Insight into the familial placement of two of the most devilish tapeworm genera. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the Southwestern Association of Parasitologists 2017 Annual Meeting, Kingston, OK.

2017 The circle of life-cycles: Parasitic mind control and the weird sex lives of worms. One of three selected speakers for the public lecture event Nerd Nite 58: "Creature Feature", Lawrence, KS.

2016 Platyhelminthes and the tapeworms of sharks and rays. Invited guest lecturer to the Haskell Indian Nations University Fall 2016 Organismal Biology course, Lawrence, KS.

2016 Does size matter? Tapeworm faunal diversity and host size in the mangrove whipray from the Solomon Islands and Australia. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the American Society of Parasitologists 2016 Annual Meeting, Edmonton, Canada.

2016 Tapeworms of the mangrove whipray: Faunal differences and host size. **K.S. Herzog** (presenter) and K. Jensen. Invited speaker at the University of Kansas Department of Ecology & Evolutionary Biology 2016 New Student Recruitment Event, Lawrence, KS.

2015 A new genus of lecanicephalidean tapeworm with comments on its distribution within a host species. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at American Society of Parasitologists 2015 Annual Meeting, Omaha, NE.

2015 A new genus of lecanicephalidean tapeworm with comments on its distribution within a host species. **K.S. Herzog** (presenter) and K. Jensen. Oral presentation given at the Southwestern Association of Parasitologists 2015 Annual Meeting, Kingston, OK.

2014 An examination of host specificity within a new genus of cestodes of elasmobranchs (Cestoda: Rhinebothriidea). **K.S. Herzog** (presenter), R. Russell and F. Reyda. Oral presentation given at the American Society of Parasitologists 2014 Annual Meeting, New Orleans, LA.

2014 A new species of tapeworm from stingrays of the Indo-Pacific that demonstrates relaxed host specificity. **K.S. Herzog**, R. Russell and F. Reyda. Poster presented at the Student Research and Creative Activity Day, SUNY Oneonta, Oneonta, NY.

2013 Morphological diversity of Rhinebothriinae New Genus 3 (Class: Cestoda). D. Willsey, **K.S. Herzog** and F. Reyda. Poster presented at the Student Research and Creative Activity Day, SUNY Oneonta, Oneonta, NY.

2013 Morphological diversity within Rhinebothriinae New Genus 3 (Cestoda: Rhinebothriidea). **K.S. Herzog**, D. Willsey and F. Reyda. Poster presented at the American Society of Parasitologists 2013 Annual Meeting, Quebec City, Canada.

2013 Relaxed host specificity in a new genus from *Dasyatis* and *Himantura*. D. Willsey (presenter), **K.S. Herzog** and F. Reyda. Oral presentation given at the American Society of Parasitologists 2013 Annual Meeting, Quebec City, Canada.

TEACHING EXPERIENCE

2021 Spring	**Introduction to Systematics	BIOL 428** Graduate Teaching Assistant (online)	University of Kansas
2018 Fall	**Biology and Diversity of Parasites	BIOL 480 & 481** Graduate Teaching Assistant	University of Kansas

TEACHING EXPERIENCE (CONTINUED)

2016 Fall	**Biology and Diversity of Parasites	BIOL 480 & 481** Graduate Teaching Assistant	University of Kansas
2016 Fall	**Principles of Biology	BIOL 102 (nonmajors)** Graduate Teaching Assistant	University of Kansas
2016 Spring	**Principles of Organismal Biology	BIOL 152** Graduate Teaching Assistant	University of Kansas
2015 Fall	**Principles of Biology	BIOL 102 (nonmajors)** Graduate Teaching Assistant	University of Kansas
2014 Spring	**Marine Biology	BIOL 259** Undergraduate Teaching Assistant	SUNY Oneonta
2014 Spring	**General Biology 2	BIOL 181** Undergraduate Teaching Assistant	SUNY Oneonta
2014 Spring	**SCUBA Diving	PHYS 118** Volunteer Assistant & Demonstrator	SUNY Oneonta
2013 Fall	**General Biology 2	BIOL 181** Undergraduate Teaching Assistant	SUNY Oneonta
2012 Fall	**SCUBA Diving	PHYS 118** Volunteer Assistant & Demonstrator	SUNY Oneonta

CURATORIAL ASSISTANTSHIP EXPERIENCE

2018 Fall **Division of Invertebrate Zoology** — Biodiversity Institute, University of Kansas

Curated, cataloged, and associated metadata to wet, dried, and slide-mounted accessioned specimens, including helminths, sea anemones, gastropods, bivalves, and earthworms. Catalogued and re-curated a collection of freshwater invertebrates accession by the Kansas Biological Survey, including insects, leeches, and crustaceans. Facilitated loans to and from the Division.

FIELD EXPERIENCE

2017 **Taiwan**

Collaborated with researchers from the University of Connecticut and the National Museum of Marine Biology and Aquarium of Taiwan to collect tapeworms of sharks and rays.

2015 **Charleston, South Carolina, USA**

Collaborated with researchers at the College of Charleston Grice Marine Laboratory and the South Carolina Department of Natural Resources to collect sharks and rays.

2014 **Manu National Rainforest, Peru**

While enrolled in Tropical Field Biology (BIOL 321, SUNY Oneonta), gained experience with field sampling techniques including pitfall trapping, mist netting, macroinvertebrate sampling and population monitoring, and neotropical plant and animal identification.

MENTORSHIP EXPERIENCE

2024–present **Z. Pella | Post-baccalaureate researcher** University of Nebraska Medical Center
With Joseph R. Fauver, co-mentoring in his work developing a bioinformatic pipeline for hookworm genome annotation and preparing next-generation sequencing libraries from black legged ticks.

2024 Summer **D. McCormick | Undergraduate research student** University of Nebraska Medical Center
With Joseph R. Fauver through the UNMC Summer Undergraduate Research Program, co-mentored in all aspects of her independent research project assessing mosquito feeding habits in Nebraska by sequencing vertebrate DNA in collected bloodmeals.

2024 Summer **S. Chandler | Medical student lab technician** University of Nebraska Medical Center
With Joseph R. Fauver, co-mentored in her work generating next-generation sequencing libraries from historical pools of West Nile Virus-positive mosquitos collected from throughout Nebraska.

2024 Summer **S. Vaugh | Undergraduate research student** University of Nebraska Medical Center
With Joseph R. Fauver, co-mentored in her work optimizing genomic DNA extraction techniques from individual third-stage hookworm larvae.

2023 Summer **R. Wu | High school research student** University of Nebraska Medical Center
With Joseph R. Fauver, co-mentored in all aspects of her work developing a bioinformatic pipeline to compare completeness between genomes generated using different assembly methods.

2023 Summer **A. Butz | Undergraduate research student** University of Nebraska Medical Center
With Joseph R. Fauver through the UNMC Summer Undergraduate Research Program, co-mentored in all aspects of her independent summer research project on population genetic structure of *Schistosoma haematobium* in Ethiopia.

2023 Summer **D. Gurung | Undergraduate research student** University of Nebraska Medical Center
With Joseph R. Fauver through the UNMC Summer Undergraduate Research Program, co-mentored in all aspects of her independent summer research project validating a novel library preparation approach for West Nile Virus whole genome sequencing.

WORKSHOPS

2023 **A practical introduction to generating genomic data using the Oxford Nanopore MinION sequencing platform (co-led with Joseph R. Fauver)**
- Presented at the American Society of Parasitologists Annual Meeting, Kansas City, MO
- Provided an overview of MinION sequencing and approaches and techniques for preparing sequencing libraries; demonstrated loading a flow cell and sequencing in real time; demonstrated how to assess the quality of a MinION sequencing run
- 43 workshop registrants of varying career stages

2023 **Correcting GenBank species identifications (co-led with Kirsten Jensen)**
- Presented at the International Workshop on Cestode Systematics and Phylogeny, Warsaw, Poland
- Highlighted the importance of updating species identifications in GenBank; provided a written guide and hands-on tutorial for submitting changes to the source, publication, and sequence information associated with GenBank records
- 41 in-person and virtual workshop attendees of varying career stages

PROGRAMING & FUNDRAISING INITIATIVES

2020 **American Society of Parasitologists Parasite Hour Virtual Seminar Series**
- Weekly virtual series for emerging parasitologists to share research during the pandemic
- 10 student presenters in 7 countries shared research on 6 subtopics in parasitology
- 45–75 parasitologists attended each session

2019 **Graduate Student Organization Fundraising Campaign**
- Crowdfunding campaign "Support Student Biologists" via the LaunchKU platform
- Over $2,500 raised from 27 donors
- Funds support graduate student travel scholarships & science outreach

2019; 2018 **Science Night at the Lawrence Beer Company**
- Free evening of community outreach at Lawrence Beer Company in Lawrence, Kansas
- Student scientists presented research with specimens, images, and activities
- Attendees also participated in brewery tours focused on the science behind brewing

2017 **Open Access Phylogeography Module for Kansas DNA Day (with Lukas B. Klicka)**
- Designed to teach high school students about the use of DNA in phylogeography
- Includes introductory PowerPoint© slides, a hands-on activity, and a thought experiment
- One of Kansas DNA Day's most-requested modules annually since its adoption in 2017

CERTIFICATIONS

Teaching Online: Course Design, Delivery, and Teaching Presence Certification
- Online professional development course (October 3–30, 2022) | UNMC–25 hrs.

Lean Six Sigma Certified
- Yellow Belt (2020) | Frank Adler, Six Sigma–15 hrs.

Professional Association of Diving Instructors (PADI) SCUBA Certified
- Open Water Diver certification (July 5, 2012) | Diver No. 12080N1501
- Advanced Open Water Diver certification (October 20, 2012) | Diver No. 12100R6811
- Ice, wreck, deep, night, and technical diving experience

PROFESSIONAL MEMBERSHIPS & SERVICE

American Society of Parasitologists

Nominating and Tellers Committee	Jun 2024–present
Early Career member	2023–present
Membership Committee	Sept 2022–present
Local Meeting Organizing Committee	Jul 2022–Jul 2023
Student representative to Council	Jul 2019–Jul 2020
Session chair at annual meeting	2018, 2021 & 2023
Membership Committee student representative	Jul 2019–Jul 2020
Local Meeting Organizing Committee student representative	Jul 2018–Jul 2020
Student Experience Committee student representative	Jul 2018–Jul 2019
Education Committee student representative	Jul 2017–Jul 2019
Student member	2013–2022

PROFESSIONAL MEMBERSHIPS & SERVICE (CONTINUED)

American Society of Tropical Medicine and Hygiene

Postdoctoral member	2022–present

Comparative Parasitology

Editorial board member	2022–present

Southwestern Association of Parasitologists

Representative to the American Society of Parasitologists	2024–present
Member	2023–present
Student member	2015–2022
Session chair at annual meeting	2017

Nebraska Tick Network

Postdoctoral member	2022–present

University of Kansas Dept. of Ecology & Evolutionary Biology

Graduate Student Organization member	Aug 2014–May 2022
BI Panorama Grant Selection Committee student representative	Feb 2021–Feb 2022
Graduate Student Organization Executive Board co-president	May 2017–May 2018
Graduate Student Organization Fundraising Committee chair	Aug 2018–Aug 2019
Graduate Student Organization Awards Committee member	Aug 2016–May 2017
Graduate Program Committee student representative	Aug 2015–Aug 2016

SUNY Oneonta

Honors Society	Inducted Fall 2010
Beta Beta Beta Biological Honors Society, *Theta Nu* chapter	Inducted Fall 2012
Phi Eta Sigma National Honors Society, Oneonta chapter	Inducted Spring 2012
Biology Club member	Aug 2011–May 2014
Biology Club Executive Board president	Aug 2013–May 2014
Diver & Tender for the Cooperstown, NY Volunteer Dive Team	Feb 2012–Aug 2014

PEER REVIEWER

2024 Dec	Cladistics
2024 Jan	Invertebrate Systematics
2023 Sept	Zoology
2022 Aug	Comparative Parasitology
2021 Oct	Journal of Parasitology
2021 Jun	Systematic Parasitology
2019 Dec	Journal of Parasitology
2019 Jan	Current Zoology
2017 Oct	Journal of Natural History

RELEVANT WORK EXPERIENCE

2014 Jun–Aug	**Eurasian Watermilfoil Biocontrol Grant** Technician	Biological Field Station, Cooperstown, NY
2013 Jul–Aug	**Aquatic Invasive Species Survey Grant** Paid Intern	Biological Field Station, Cooperstown, NY
2013 May–Aug	**Nature Interpreter** Paid intern	Biological Field Station, Cooperstown, NY

SELECTED SCIENCE OUTREACH

2021 **Communication: Discovery Day–Amazing Adaptations**
As part of broader efforts of the KU Natural History Museum to create virtual outreach experiences during the COVID-19 pandemic, produced a video on the unique adaptations of tapeworms including a guided tutorial for building and using a simple microscope at home.

2021 **Communication: Parasite Week**
As part of the American Society of Parasitologists Parasite Week program, video conferenced with two high school science classrooms in Oklahoma to teach students about what parasites are, to show parasites under the microscope, and present on personal research projects.

2020 **Communication: American Society of Parasitologists "Skype a Parasitologist" Program**
Video conferenced with two Michigan middle school science classrooms to present personal research and converse with students about the biology, importance, and impact of parasites in ecological communities.

2015–2022 **Interactive Programming: Meet a Marine Biologist**
With other graduate students, routinely spoke with eastern Kansas and western Missouri *Girl Scouts of the USA* troops about what it means to be a researcher and a woman in the field of marine biology. Provide brief lab tours in addition to presentations to scouts visiting the University of Kansas. Introduce scouts to preserved marine animal specimens.

2019 **Interactive Programming: Collections Up Close**
On two separate days at the Natural History Museum and KU Student Union, showed University of Kansas students, faculty and staff preserved specimens from the museum's invertebrate zoology collection. Designed an interactive display incorporating microscopy, preserved specimens and imagery to demonstrate invertebrate diversity and the value of working research collections.

2019 **Interactive Programming: "Can DNA Help Us Understand the Rainforest?" at Camp Prairie Schooner**
Presented to scouts at the Prairie Schooner Rainforest Retreat Girl Scout Camp in Kansas City, MO on the importance of using DNA evidence to help estimate species diversity in the rainforest, following by an activity for each scout to extract and examined their own DNA.

2018 **Informal Mentoring: Letters to a Pre-Scientist**
Volunteered with the organization Letters to a Pre-Scientist and was matched as a pen pal to a 3rd grade student in a high-poverty school in Illinois to communicate about science and school as a means of breaking down the barrier to higher education.

SELECTED SCIENCE OUTREACH (CONTINUED)

2017–2019 **Interactive Programming: Sexy Science**
Annually, presented on the unique reproductive strategies of several parasite taxa to interested students and community members visiting the University of Kansas Natural History Museum. Designed an interactive display incorporating microscopy, preserved specimens, imagery, and literature to introduce visitors to parasite biology.

2017 **Teaching: Wyandotte High School College-Level Biology Class**
With a fellow graduate student, taught college-level biology students at Wyandotte High School in Kansas City, MO about the biology of tardigrades and the importance of biodiversity. Facilitated an activity in which students examine tardigrades in the classroom, and then collect tardigrade habitat from school grounds and record basic sample and locality information for later identification of tardigrade specimens at the Baker Wetlands laboratory.

2017 **Interactive Programming: Expanding Your Horizons**
With three other women graduate students, volunteered as a workshop leader at the Kansas City Science Pioneers Expanding Your Horizons event for 6th to 8th grade girls interested in science. Helped develop and present a hands-on workshop to help girls understand the correlation between form and function of coloration in different groups of animals.

2016 **Interactive Programming: Cordley Elementary Science Club**
With other graduate students, held a hands-on science workshop at Cordley Elementary in Lawrence, KS. Taught students about the importance and relevance of DNA and helped them extract their own DNA using an abbreviated, age-appropriate protocol.

2016 **Interactive Programming: Free State High School Explorations in Science Club**
Assisted in arranging visits to biological laboratories at the University of Kansas for high school students interested in science to speak to graduate students about research. Provided a lab tour and spoke with visiting students about the biodiversity of the tapeworms of sharks and stingrays using a combination of microscopy, preserved specimens, and scanning electron micrographs.

2016–2018 **Interactive Programming: Science of the Macabre**
Annually, presented on the biology, ecology, and evolutionary history of several parasite taxa to interested students and community members visiting the University of Kansas Natural History Museum. Designed an interactive display incorporating microscopy, preserved specimens, imagery, and literature to introduce visitors to parasites.

2015 **Teaching: Wyandotte High School College-Level Biology Class**
With other graduate students, taught college-level biology students at Wyandotte High School in Kansas City, Missouri about arthropod vectors, and the parasites and diseases they transmit. Developed and facilitated a laboratory activity for students to examine specimens, watch short topical videos, and discuss vector biology. Assisted in leading a post-lab class discussion.

2015 **Teaching: DNA Day**
Volunteered as a science ambassador to Shawnee Mission North High School to teach multiple high school biology classes about DNA, genetics and ongoing research in biology at the University of Kansas. Delivered lectures and helped facilitate a DNA extraction activity.

SELECTED SCIENCE OUTREACH (CONTINUED)

2015 **Teaching: Wyandotte High School Environmental Science Class**
With other graduate students, taught an environmental science class at Wyandotte High School, Kansas City, MO how to assess biological diversity. Designed an in-class exercise on collecting and identifying specimens and calculating diversity; helped develop and deliver a lecture on diversity assessment; showed students how to collect and identify insects.

2015 **Interactive Programming: University of Kansas Biodiversity Institute Science Saturday**
Co-presented a 2-hour rotating workshop offered for children and community members of all ages. Introduced participants to the corresponding morphology of flowers and their insect pollinators and highlighted the diversity and importance of local Kansas pollinators.

2014–2016 **Interactive Programming: University of Kansas Carnival of Chemistry**
Annually, presented a 3-hour rotating workshop offered annually for children ages 2–12. Designed an interactive display incorporating microscopy and preserved specimens to introduce participants to the tapeworms of sharks and stingrays, as well as to basic elasmobranch biology and ecology.