

**Kelly Weinersmith**  
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## EDUCATION

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**Ph.D. Ecology** **2007 - 2014**

*University of California, Davis, Graduate Group in Ecology*

Dissertation: Reciprocal interactions between host behaviors, steroid hormones, and parasites.

Major Advisor: Dr. Andrew Sih

**M.S. Ecology, Evolution, and Conservation Biology** **2005 - 2007**

*Bowling Green State University, Bowling Green, OH*

Thesis: Individual differences in activity and responses to a predator attack in juvenile smallmouth bass (*Micropterus dolomieu*)

Major Advisors: Dr. Daniel Wiegmann and Dr. Jeffrey Miner

**B.S. Honors in Biology** **2000 - 2004**

*Bowling Green State University, Bowling Green, OH*

Major: Biology

Minor: Chemistry

Honors Thesis: Modified synthesis of epigallocatechin-3-gallate for use as an anti-tumor compound

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## EMPLOYMENT HISTORY

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**2017 -** Adjunct Assistant Professor, Department of BioSciences, Rice University

**2017 - 2020** Visiting Assistant Researcher, MBRD, University of California San Diego

**2015 - 2016** Huxley Fellow, Department of BioSciences, Rice University

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## POP-SCI WRITING

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**Weinersmith KL** and Weinersmith ZA. (2023) Title to be Announced. *Penguin Press*.

Weinersmith ZA and **Weinersmith KL**. (2020). Fuga Dal Pianeta Terra (Escape from Planet Earth). *Wired Italy. Written in English, translated to Italian.*

**Weinersmith KL**. The Other Animals. (2019) Audible. Edited by Rachel Hamburg.

*This was a piece of short fiction, available as an audiobook.*

**Weinersmith KL** and Weinersmith ZA. (2017) *Soonish: Ten Emerging Technologies That'll Improve and/or Ruin Everything. Penguin Press.*

*\*NYTimes Bestseller. Featured on NPR's Science Friday, NPR's Marketplace, Science, Nature, Forbes, Wired, Smithsonian Magazine, Freakonomics, Wired, Scientific American, The Wall Street Journal, Popular Science, Slate, Time Magazine, The Guardian, BBC Wales, and C-SPAN. Translated into >10 languages.*

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## PUBLICATIONS

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\*Indicates co-author is a high school, undergraduate, or graduate student I mentored or co-mentored.

Laroche RAS\*, **Weinersmith KL**, Davis ML, Angeloni L, Baylis JR, Newman SP, Egan SP, Weigmann DD. (2023). Size-associated energetic constraints on the seasonal onset of reproduction in a species with indeterminate growth. *Oikos*, in press. <https://doi.org/10.1111/oik.09739>

Ward AKG, Bagley RK, Egan SP, Hood GR, Ott JR, Prior KM, Sheikh SI, **Weinersmith KL**, Zhang L, Zhang YM, Forbes AA. (2022). Speciation in Nearctic oak gall wasps is frequently correlated with changes in host plant, host organ, or both. *Evolution* 76 (8): 1849-1867. <https://doi.org/10.1111/evo.14562>

Zhang YM, Sheikh SI, Ward AKG, Forbes AA, Prior KM, Stone GN, Gates MW, Egan SP, Zhang L, Davis C, **Weinersmith KL**, Melika G, Lucky A. (2022). Delimiting the cryptic diversity and host preferences of *Sycophila* parasitoid wasps associated with oak galls using phylogenomic data. *Molecular Ecology* 31(16): 4417-4433. <https://doi.org/10.1111/mec.16582>

Ward AKG Busbee RW, Chen RA, Davis CK, Driscove AL, Egan SP, Goldberg BAR, Hood GR, Jones DF, Kranz AJ, Meadely Dunphy SA, Milks AK, Ott JR, Prior KM, Sheikh SI, Shzu S-A, **Weinersmith KL**, Zhang L, Zhang YM, Forbes AA. (2022). The arthropod associates of 155 North American cynipid oak galls. *Zoological Studies* 61 (57). doi:10.6620/ZS.2022.61-57.

Brandão-Dias PFP, Zhang YM, Pirro S, Vinson CC, **Weinersmith KL**, Ward AKG, Forbes AF, Egan SP. (2022). Describing biodiversity in the genomics era: A new species of Nearctic Cynipidae gall wasp and its genome. *Systematic Entomology* 47(1): 94-112. <https://doi.org/10.1111/syen.12521>

\*Press for this article in *The Hill*, *Syfy*, *Houston Chronicle*, *Exame* (Brazil), *Daily Mail* (U.K.), *The Rice Thresher*, *Rice News*, *Futurity*, *International Business News*, and *Texas Monthly*. Also featured on *Houston Matters* on NPR, and selected by the *Royal Entomological Society* for a special issue to mark the UN Biodiversity Conference (COP-15).

Nadler LE, Bengston E, Eliason EJ, Hassibi C, Helland-Riise SH, Johansen IB, Kwan GT, Tresguerres M, Turner AV, **Weinersmith KL**, Øverli Ø, Hechinger RF. (2021). A brain-infecting parasite impacts host metabolism both during exposure and after infection is established. *Functional Ecology* 35(1): 105-116. <https://doi.org/10.1111/1365-2435.13695>

**Weinersmith KL**, Forbes AA, Ward AKG, Brandão-Dias PFP, Zhang YM, Egan SP. (2020) Arthropod Community Associated With the Asexual Generation of *Bassettia pallida* (Hymenoptera: Cynipidae). *Annals of the Entomological Society of America* 113(5): 373-388. <https://doi.org/10.1093/aesa/saaa009>

Helland-Riise SH, Vindas MA, Johansen IB, Nadler LE, **Weinersmith KL**, Hechinger RF, Øverli Ø. (2020). Brain-encysting trematodes (*Euhaplorchis californiensis*) decrease raphe serotonergic activity in California killifish (*Fundulus parvipinnis*). *Biology Open* (9): bio049551.

Helland-Riise SH, Nadler LE, Vindas MA, Bengston E, Turner AV, Johansen IB, **Weinersmith KL**, Hechinger RF, Øverli Ø. (2019). Regional distribution of a brain-encysting parasite provides insights on parasite-induced host behavioral manipulation. *Journal of Parasitology*. 106 (1): 188-197.

Ward AKG, Khodor OS, Egan SP, **Weinersmith KL** and Forbes AA. (2019). A keeper of many crypts: the parasitoid *Euderus set* manipulates the behavior of a taxonomically diverse array of oak gall wasp species. *Biology Letters*. 15: 20190428.

\*Press for this article in *NYTimes*, *Smithsonian.com*, *Phys.org*, and *Science*.

**Weinersmith KL**, DeCarion DD, Bibian A, Young M, Sih A and Conrad JL. (2019). Diets of Largemouth Bass (*Micropterus salmoides*) in the Sacramento San Joaquin Delta. *San Francisco Bay and Watershed Science*. 17 (1): 1-16.

**Weinersmith KL**. (2019). What's gotten into you?: A review of recent research on parasitoid manipulation of host behavior. *Current Opinion in Insect Science*. 33: 37-42.

Egan SP, Hood GR, Zhang L, Comerford M and **Weinersmith KL** (2018). Borders on the rise: A review of the evolutionary impacts of border barriers on natural populations. *Public Policy Brief - Baker Institute of Public Policy*.

**Weinersmith KL**, Brown CE\*, Clingen KB\*, Jacobsen M\*, Topper LB\* and Hechinger RF. (2018). *Euhaplorchis californiensis* cercariae exhibit positive phototaxis and negative geotaxis. *The Journal of Parasitology* 104: 329-333.

Egan SP, **Weinersmith KL**, Liu SM\*, Ridenbaugh RD, Zhang YM and Forbes AA. (2017). Description of a new species of *Euderus* Haliday from the southeastern United States (Hymenoptera, Chalcidoidea, Eulophidae): the crypt-keeper wasp. *Zookeys* 645: 37-49.

**Weinersmith KL**, Liu SM\*, Forbes AA and Egan SP. (2017). Tales from the crypt: a parasitoid manipulates the behavior of its parasite host. *Proceedings of the Royal Society B* 284: 20162365.

\*Press for this article in *National Geographic*, *Nature*, *Science*, *BBC World*, *CBS*, *Gizmodo*, *New Scientist*, *Live Science*, *Popular Science*, and *The Atlantic*.

\*F1000 Recommended Article

Barber I, Mora AB, Payne EM, **Weinersmith KL**, and Sih A. (2017). Parasitism, personality and cognition in fish. *Behavioural Processes* 141: 205-219.

**Weinersmith KL** and Earley RL. (2016). Better with your parasites? Incorporating lessons from evolved dependence and conditionally helpful parasites to behavioural ecology. *Animal Behaviour* 118: 123-133.

**Weinersmith KL**, Hanninen AF\*, Sih A, McElreath R and Earley RL (2016). The relationship between handling time and cortisol release rates changes as a function of brain parasite densities in California killifish. *Journal of Fish Biology* 88: 1125-1142.

Renick VC, **Weinersmith KL**, Vidal-Dorsch DE and Anderson TA. (2016). Effects of a pesticide and a parasite on neurological, endocrine, and behavioral responses of an estuarine fish. *Aquatic Toxicology* 170: 335-343.

Conrad JL, Bibian AJ, **Weinersmith KL**, DeCarion D, Young MJ, Crain P, Moyle PB and Sih A (2016). Invasion of Brazilian waterweed (*Egeria densa*) facilitates expansion of an estuarine population of largemouth bass (*Micropterus salmoides*). *Transactions of the American Fisheries Society* 145: 249-263.

Johnson EL, **Weinersmith KL** and Earley RL (2016). Changes in the reproductive physiology of mangrove rivulus *Kryptolebias marmoratus* following exposure to environmentally relevant concentrations of ethinyl estradiol. *Journal of Fish Biology* 88: 774-786.

**Weinersmith KL and Faulkes Z** (2014). Parasitic manipulation of hosts' phenotype, or how to make a zombie-an introduction to the symposium. *Integrative and Comparative Biology* 54: 93-100.

**Weinersmith KL**, Warinner CB\*, Tan V\*, Harris DJ, Mora AM, Kuris AM, Lafferty KD and Hechinger RF (2014). A lack of crowding? Body size does not decrease with density for two behavior-manipulating parasites. *Integrative and Comparative Biology* 54: 184-192.

Ferrari MCO, Ranåker L, **Weinersmith KL**, Young MJ, Sih A and Conrad JL (2014). Effects of turbidity and an invasive waterweed on predation by introduced largemouth bass. *Environmental Biology of Fishes* 97: 79-90.

Conrad JL, **Weinersmith KL**, Brodin T, Saltz JB and Sih, A (2011). Behavioural syndromes in fish: a review with implications for ecology and fisheries management. *Journal of Fish Biology* 78: 395-435.

Cote J, Fogarty S, Brodin T, **Weinersmith KL** and Sih A (2011). Personality-dependent dispersal in the invasive mosquitofish: group composition matters. *Proceedings of the Royal Society, Series B* 278: 1670-1678.

Cote J, Fogarty S, **Weinersmith KL**, Brodin T and Sih A (2010). Personality traits and dispersal tendency in the invasive mosquitofish (*Gambusia affinis*). *Proceedings of the Royal Society, Series B* 277: 1571-1579.

\*Press for this article in *Nature's Research Highlights* and in *Conservation Magazine*.

Wiegmann DD, **Weinersmith KL** and Seubert SM (2010). Multi-attribute mate choice decisions and uncertainty in the decision process: a generalized sequential search strategy. *Journal of Mathematical Biology* 60 (4): 543-572.

**Smith KL**, Miner JG, Wiegmann DD and Newman SP (2009). Individual differences in exploratory and antipredator behaviour in juvenile smallmouth bass (*Micropterus dolomieu*). *Behaviour* (146): 283-294.

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## GRANTS, FELLOWSHIPS, AND AWARDS

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**2018** Genentech grant awarded to Egan and Weinersmith

NSF Award #IOS-1755421: "Collaborative Research: Expression and dynamics of reproductive tactics in a wild population of smallmouth bass". Co-PIs: Wiegmann, Egan, and Weinersmith

**2015** Huxley Faculty Fellowship in Ecology and Evolutionary Biology from Rice University

**2013** National Science Foundation symposium funding [IOS #1338574]  
Awarded for "Meeting: SICB 2014 parasitic manipulation symposium, Austin, Texas 3-7 January 2014". Lead PI: Zen Faulkes (\$12,238)

**2012** American Society of Parasitologists Outstanding Student Paper Award

Awarded for talk entitled “Two manipulative trematode parasites modify the physiology and behavior of California killifish (*Fundulus parvipinnis*)”

American Association of University Women Dissertation Fellowship

Parasites and personality: Interactions between the behavior and physiology of hosts and their parasites (\$20,000)

UCD and Humanities Graduate Research Award in Ecology (\$1,500)

UCD Graduate Group in Ecology Block Grant Fellowship (2 quarters)

**2011** National Science Foundation Doctoral Dissertation Improvement Grant [IOS #1110639]

Dissertation Research: Reciprocal interactions between host behaviors, steroid hormones, and parasites (\$14,600)

Animal Behavior Society Student Research Grant

Parasites and personality: Behavioral and hormonal interactions between California killifish and their behaviorally manipulative trematode parasites (\$1,500)

SciFund Challenge Round 1: An Experiment in Crowdfunding

Zombie Fish (\$5,000): My proposal received popular press attention from LiveScience.com, prominent science bloggers and journalists Ed Yong and Carl Zimmer, and my video proposal received over 27,000 views from members of the general public.

University of California Davis Department of Environmental Science and Policy Travel Grant (\$1,000)

**2010** UCD Graduate Group in Ecology Block Grant Fellowship (2 quarters)

**2009** Natural Reserve System Mildred E. Mathias Graduate Student Research Grant (\$1,500)

UCD Peter J. Shields and Henry A. Jastro Research Fellowship (\$1,500)

**2008** University of California Davis Department of Environmental Science and Policy Travel Grant (\$1,000)

**2007** UCD Graduate Group in Ecology Block Grant Fellowship (4 quarters)

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## SERVICE AND LEADERSHIP

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### **OUTREACH/PUBLIC PRESENTATIONS**

**2021 – present** Daniel and Jorge Explain the Universe  
I guest host ~1 episode per month.

**2022** 34<sup>th</sup> National Convention of the American Society of Engineers of Indian Origin  
Panelist in the Space Access & Tourism session.

**2021** National Youth Science Foundation’s STEM Seminar Series (March 2021)

Gave a virtual lecture plus Q&A entitled: Careers in Parasitology & Nature's Zombie Makers

American Society of Parasitologists Parasite Week (March 2021)

Gave a virtual zoom lecture on parasitism to a class of high school students in Florida, and answered their questions about careers in parasitology.

The Space Show (July 2021)

Guest on Dr. David Livingston's podcast The Space Show, talking about the future of humans in space.

**2011-2019** Science...sort of podcast  
Science podcast co-host.

**2019** Lecture for Charlottesville Master Naturalists class (April 2019)

"Town Hall" at the University of Oklahoma (November 2019)

"How Soonish Taught Me That Most of My Opinions Are Wrong"

Skype Question and Answer Sessions with Students

Session with Cris Hawken's high school classroom

Session with Mark Martin's college classroom

Podcast guest

Guest on podcasts, including Write About Now, Inquiring Minds, End of the Chain, and Casual Space Podcast.

**2018** Kids' Tech University at Bowling Green State University

Presented "When Sci-Fi Comes to Life: When Parasites Control Host Behavior" to a group of 9-12 year-olds, and mentored students through activities in the afternoon. (March 2018)

Podcast Guest

Guests on various podcasts, including EconTalk.

**2017** Tales from the Crypt

Press for "Tales from the Crypt: a parasitoid manipulates the behaviour of its host" generated press from *The Atlantic*, *National Geographic*, *BBC World*, *BBE Earth*, *CBC Quirks & Quarks*, *Science*, *Nature*, *New Scientist*, *Live Science*, *Future Proof (Ireland's NewsTalk FM radio)*, *Popular Science*, *Gizmodo*, *San Francisco Chronicle*, *Phys.org*, *The Scientist*, *CBS News*, and *Yahoo News* (among others).

We also did a Reddit Science AMA, which had a total reach of 1.19 million people, with 4,749 people clicking through to read the answers (according to data provided by Reddit r/Science moderators).

BASIS San Antonio North Central presentation

Gave a presentation to and fielded questions from San Antonio middle school students about my research and careers in science research.

Comments to Journalists

Provided comments on recently published manuscript for article written by Ed Yong for *The Atlantic* ("How the Zombie Fungus Takes over Ants' Bodies to Control Their Minds").

Podcast and Radio Show Guest

Guest on podcasts and radio shows, including NPR's Marketplace, Talk Nerdy, Guardian Science Podcast, BBC's Free Thinking, BBC Wales, The Writer Files, and Freakonomics.

#### Public Talks

Public talks in 2017 included talks at Google NYC and The Royal Institution (London).

**2016**

#### Rice Science Café (Sept 6, 2016)

Talk entitled "Brain-Infecting Parasites: What can zombie-makers teach us about the brain, immune system, and behavior?" given to a general audience at the Black Labrador Pub.

#### Interviewed by Science News for Students

Interviewed by Kathryn Hulick Gargolinski for an article in *Science News Media Group's Science News for Students* about parasites that manipulate host behavior. The article "Real Zombies" will be released this Halloween.

#### Rice Civic Scientist Program

Visited Mr. Michael Tee's AP Environmental Science class at Davis High School, and gave a talk about my journey into science and parasitology.

**2015**

#### Smithsonian Magazine and Nerd Nite's Future is Here Festival

I gave a talk entitled "Will the zombie-makers of today yield the neuroscience and drug discoveries of tomorrow?" The video from my talk is available on the Smithsonian Magazine, and is the most shared video from the 2-day event.

#### Synapse: The University of California San Francisco Student Paper

Interviewed for article on Synapse entitled, "Renaissance woman: Kelly Weinersmith on science, outreach and family"

#### Interviews for popular science articles:

Buzzfeed – "6 of Nature's Most Horrifying Mind-Controlling Parasites" by Tom Chivers

New Scientist – "Zoologger: Necrophiliac spider mite prefers its mate dead" by Agata Blaszcak-Boxe

**2014**

#### Great Adaptations – A Children's Book About Evolution

Collaborated with a poet and an artist to share the story of how *Euhaplorchis californiensis* manipulates the behavior of California killifish. This book is aimed at getting children excited about the concepts of evolution and adaptation, and so far over 1,500 copies have been sold.

#### University of California San Francisco Women in the Life Sciences

I was invited to speak to the UCSF WiLS group about work-life balance, my graduate school experience, applying for postdoctoral positions, and my outreach activities.

#### Bay Area Science Festival

Co-hosted a live-recording of the science podcast Science...sort of, which was attended by an audience of ~40 people. I also hosted the Festival of Bad Ad Hoc Hypotheses, or BAHFest, which was attended by over 1,000 people. This festival brings people together to laugh about plausible-sounding evolutionary theories that are clearly false.

The Pseudoscientists Podcast – Parasites & Zombies: A Discussion With Kelly Weinersmith

I was a guest on The Pseudoscientists, a podcast run by the Young Australian Skeptics.

**2013** #SciFund Outreach Training Course

Co-organized and taught a free, online course to train scientists on techniques commonly used for outreach. I wrote a series of blog posts on the topic for the #SciFund blog, and my efforts were featured in Slate Magazine's Bad Astronomy blog.

K-12 Outreach

Spoke with National Honors Society students at Youngker High School about careers in science.

Australian Society of Parasitologists: Parasitologists in the Spotlight

I was an invited guest on this Google On Air Hangout, which run by the Australian Society of Parasitologists and covered the topic of parasite manipulation of host phenotype.

**2011** Women in Science Panel at Geek Girl Con (Seattle, WA)

I organized and moderated a panel on women in science at a conference aimed at getting young women excited about geek culture (including geek science culture).

Adventures in Animal Behavior: A Science Event at Wonderlab (Bloomington, IN)

I organized a station where visitors (largely elementary school students and their parents) could view trematode parasites emerging from their snail intermediate hosts while learning about parasites with complex life cycles.

**2008** Reviewer of the Science Framework for California Public Schools

I made general comments on the text, reviewed the information for accuracy, and made suggestions regarding recent scientific advances that may be pertinent to the curriculum.

**ACADEMIC SERVICE**

**2008-  
present**

Manuscript review

Animal Behaviour (6/2017, 7/2019, 3/2020, 8/2020, 9/2020, 10/2021)

Behaviour (12/2011)

Behavioral Ecology (6/2013)

Behavioral Ecology and Sociobiology (10/2008)

Biology Letters (07/2019)

Coral Reefs (06/2021)

Current Zoology (1/2018)

Ecological Entomology (12/2017, 4/2018)

Environmental Biology of Fishes (5/2018)

Ethology (6/2020)

Evolution (3/2016)

Functional Ecology (6/2022)

International Journal of Parasitology (3/2015)

Journal of Applied Ecology (10/2018, 07/2021)

Journal of Ethology (11/2011)

Journal of Experimental Zoology (5/2015)

Journal of Molluscan Studies (7/2019)

Journal of Parasitology (9/2015, 6/2016, 6/2018)

Marine Biology (4/2016, 7/2016)



Nature of Science (12/2019)  
Physiology & Behavior (8/2015)  
PLoS One (1/2018)  
Proceedings of the Royal Society B (5/2020)  
The American Naturalist (2/2013, 1/2018)

**2022 – Present**

American Society of Parasitologists  
Newsletter Editor  
Member at Large

Helminthological Society of Washington  
President

**2018-2021**

American Society of Parasitologists  
Public Relations Committee (co-chair)  
Newsletter Editor  
American Society of Parasitologists blog editor  
Organizer of Parasite Day 2019 (which reached ~1,370 students)  
Executive Committee Member at Large

Helminthological Society of Washington  
Member at Large

**2017-2018**

American Society of Parasitologists  
Public Relations Committee (co-chair)  
Student Awards Committee (fill-in judge for annual conference)

**2015-2017**

American Society of Parasitologists  
Student Awards Committee (member)  
Chair of the Ad Hoc Committee on Social and Digital Media

**2013-2014**

Symposium organization  
Co-organizer of symposium entitled “Parasitic manipulation of host phenotype, or how to make a zombie” for the SICB 2014 conference (Austin, TX). Talks from this symposium were featured in an article in *Science: Pennisi E* (2014). Parasitic puppeteers begin to yield their secrets. *Science* 343: 239.

American Society of Parasitologists Communications Committee  
I co-ran the Twitter account for the American Society of Parasitologists.

**2008-2009**

Ecology Graduate Student Association (EGSA)  
Co-chair of the EGSA.

**2007-2008**

Graduate Student Senate (GSA)  
EGSA representative.

**2006-2007**

Biology Graduate Student Association (BGSA):  
President of the EGSA.

University Committee on Ogg Science Library  
Committee member.

**2005-2006**

Graduate Student Senate  
BGSA representative.

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TEACHING AND MENTORING EXPERIENCE

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## **TEACHING**

- 2018 & 2020** Guest lecturer for Public Science Communication Seminar (NSCI 320/520 at Rice University)  
Created and presented a lecture about public science communication through the mediums of podcasts, events, and books.
- 2015-2022** Guest Lecturer for Evolution class at Rice University (BIOS 334)  
Created and presented a lecture about parasites and evolution.
- 2016** Co-instructor for Field Bird Biology Lab (EBIO 337 at Rice University)  
Instructor for Lab Module in Ecology (EBIO 316 at Rice University)  
Instructor for Parasitology Reading Group (EBIO 542 at Rice University)
- 2015** Co-instructor for Field Bird Biology Lab (EBIO 337 at Rice University)  
Lectured, led field trips, and supervised independent research projects for this one credit hour course. A subset of students were guided through the process of creating a bird habitat restoration plan, which will be implemented at the Hogg Bird Sanctuary.
- Instructor for Lab Module in Ecology (EBIO 316 at Rice University)  
I lectured and led field ecology lab experiments for this course. The students also conducted a large class project which is in review at *Parasites & Vectors*.
- 2013** Guest lecturer for Behavioral Ecology (Bowling Green State University)  
Created and presented lectures on behavioral syndromes and group social behavior for this graduate student course.
- 2012** Guest lecturer for Anatomy and Physiology (University of Alabama)  
Created and presented a lecture on interactions between parasites and host physiology.
- 2011** Summer Session Research Mentorship Program (University of California Santa Barbara)  
Mentored 3 high school students through an intensive 6 week research program. Two students earned co-authorship on the publication being prepared from the data they collected.
- 2008** Teaching assistant for General Ecology (University of California Davis)  
Moderated discussions and debates, led review sessions, and assisted in grading.
- 2007** Teaching assistant for Animal Behavior (Bowling Green State University)  
Oversaw in-class experiments and assisted the students in designing and executing individual animal behavior projects.
- 2006** Guest lecturer and teaching assistant for Population and Community Ecology (Bowling Green State University)  
Delivered three lectures and a series of presentations on mathematical and statistical techniques in ecology. Graded assignments associated with these presentations and course examinations.
- 2005** Teaching assistant for The Environment of Life (Bowling Green State University)  
Oversaw in-class experiments and graded lab reports.

## **STUDENT MENTORING**

\*Students are or will be co-authors on manuscripts arising from our collaborations.

- 2021 -** Brian Okwiri\* (Master's, Bowling Green State University), Erica Stegens\* & Gabrielle Philips\* (Undergraduate, Bowling Green State University), and Robert LaRoche\* (PhD, Rice University)  
*Skills taught:* I co-advised these students. I worked with all students to become familiar with the literature on alternative reproductive tactics, generate protocols for determines ages and growth rates of smallmouth bass from fish scales, discussed experimental design, and analyses in R.
- 2019 - 2021** Mazie Lee Davis\* (Master's, Bowling Green State University), Brian Okwiri\* (Master's, Bowling Green State University, and Robert LaRoche\* (PhD, Rice University)  
*Skills taught:* I co-advised these students. I worked with all students to become familiar with the literature on alternative reproductive tactics, generate protocols for determines ages and growth rates of smallmouth bass from fish scales, and discussed experimental design.
- 2018-2019** Abhinav Birda\*, Jasmine Terhall\*, James Riddell, Jessica Cameron, Reyna Carillo, Matthew Campos, and Khang Tong (Scripps Institution of Oceanography)  
*Skills taught:* Video processing and quantification of fish behavior.
- 2017-2018** Brandon Mukogawa, Veranca Shah, Sarra Larif, Adrian Castillo, Jasmine Terhall, Abhinav Birda, Karina Cobain\*, Kaia Quigg, Jennifer Dusto\*, Paige Mathias, DeAundre Puritty, Morgan Prince, and Courtney (Quartz) Clark (Scripps Institution of Oceanography)  
*Skills taught:* Video processing and quantification of fish behavior.
- Sydney Cottingham\* (Lousiana State University)  
*Skills taught:* Detection of helminth parasites in lower digestive tract of lesser scaup
- 2016-2017** Sean Liu\* (Rice University)  
*Skills taught:* Branch dissections for the Tales from the Crypt paper
- Jasmine Akiko Garcia (Scripps Institution of Oceanography)  
*Skills taught:* Quantification of fish behavior, manuscript preparation, poster presentation.
- 2016** Marcella Pinnel, Alice Zhu, and Laura Nicholson\* (Rice University)  
*Skills taught:* Techniques for analyzing videos of animal behavior.
- 2012-2014** Jelani Grace\* and Walter Smith (University of Alabama)  
*Skills taught:* Killifish hormone collection and measurement, killifish dissection and parasite quantification, and quantification of fish behavior.
- 2013-2014** Cameron Calhoun\*, Lee House\*, Morgan Lancaster\*, and Tyler King\* (University of Alabama)  
*Skills taught:* Killifish dissection and parasite quantification, and quantification of fish behavior.
- 2012-2013** Madeline Haddock\* (University of Alabama)  
*Skills taught:* Killifish hormone collection and measurement, killifish dissection and parasite quantification, and quantification of fish behavior.
- 2011-2012** Zöe Zilz (University of California Santa Barbara)  
*Skills taught:* Killifish dissection and parasite quantification.

**2011** Jessie Lei, Virginia Tan\*, Chloe Warinner\* (High school students mentored at the University of California Santa Barbara)  
*Skills taught:* Parasite collection, killifish dissection and parasite quantification, and parasite volume measurements.

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INVITED TALKS

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**2023** North Carolina State University: Applied Ecology Department Seminar – February 23, 2023  
What's Gotten Into You?: Parasite Manipulation of Host Phenotype in Two Systems

**2022** Iowa City Darwin Day: Science Fest – April 8 & 9, 2022  
As an invited speaker, I gave two presentations:  
Welcome to Zombieland: Real Tales of Parasites Manipulating Host Behavior  
Dangerous, Smelly, and Covered in Dust: The Future of Humans in Space

**2020** Purdue University: Department of Biological Sciences – February 26, 2020  
What's Gotten Into You?: Parasite Manipulation of Host Phenotype in Two Systems

Rockhurst University: Visiting Scholar Lecture – April 20, 2020  
How Little We Know: Why Most of Our Opinions Are Probably Wrong

University of Calgary's Host-Parasite Interactions Seminar – September 15, 2020  
What's Gotten Into You?: Parasite Manipulation of Host Phenotype in Two Systems

**2019** University of Virginia's Department of Biology EcoLunch – October 15, 2019  
An unusual niche: Parasites, behavior, and a new local space for field work

University of Oklahoma Biology Department Seminar – November 13, 2019  
Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

**2018** Bowling Green State University Biology Department Seminar – March 21, 2018  
Soonish: Ten Emerging Technologies That'll Improve And/Or Ruin Everything

University of California Merced Cognitive and Information Sciences program's Minds, Technology, and Society seminar invited speaker- April 9, 2018  
Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

University of Central Florida Department Seminar – September 10, 2018  
Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

Zombie Medicine Conference (Arizona State University) – October 21, 2018  
Welcome to Zombieland: Real tales of parasites manipulating host behavior

**2016** University of Texas at Austin Department of Integrative Biology (Population Biology Seminar Series) – September 22, 2016  
Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

**2015** Bowling Green State University Biology Department Seminar  
Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

University of Michigan Early Career Scientists Symposium

Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

**2014**

University of California San Francisco Evolution Seminar Series

Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

Rice University Ecology and Evolutionary Biology Department Seminar

Parasite manipulation of host phenotype: mechanisms, behavior, ecology, and evolution.

**2011**

University of Eastern Finland Host-Parasite Workshop

Trematode parasites manipulate the behavior and physiology of California killifish (*Fundulus parvipinnis*).

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**PRESENTATIONS AT PROFESSIONAL MEETINGS**

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Presenter's name in bold. \*Denotes presentation by student I mentored.

Laroche RAS\*, **Weinersmith KL**, Angeloni LM, Egan SP and Wiegmann DD (2021). The influence of energetics and competition on smallmouth bass reproductive behavior. Oral Presentation. Society for Integrative and Comparative Biology. Virtual Conference.

**Weinersmith KL**, Forbes AA, Ward AKG and Egan SP (2020). Tales from the crypt: A parasitoid manipulates the behavior of its gall wasp hosts. Oral Presentation. Animal Behavior Society. Virtual Conference.

Laroche RAS\*, **Weinersmith KL**, Angeloni LM, Egan SP and Wiegmann DD (2020). The influence of energetics and competition on smallmouth bass reproductive behavior. Oral Presentation. Animal Behavior Society. Virtual Conference.

Cottingham SL, Stroud CM, England CJ, Weinersmith KL and **Ringelman KM** (2019). Gastrointestinal parasites of Less Scaup wintering in Lake Pontchartrain, Louisiana. Poster Presentation. North American Duck Symposium. Winnipeg.

**Weinersmith KL** (2019). "Oh! That looks fun too!" Or, how to cobble together a career when everything sounds fun. Invited Oral Presentation for the Student Symposium. Oral Presentation. American Society of Parasitologists Annual Conference. Rochester, MN.

**Weinersmith KL**, Ward AKG, Khodor OS, Egan SP and Forbes AA (2019). A keeper of many crypts: the parasitoid *Euderus set* manipulates the behavior of a taxonomically diverse array of oak gall wasp species. Oral Presentation. Helminthological Society of Washington Annual Conference. Winchester, VA.

**Hernandez RN\***, Weinersmith KL and Hechinger RF (2019). Commencing evasive maneuvers: California killifish, moe, dart, and scratch more during trematode exposure and attack. Oral Presentation. Southern California Society of Parasitologists Annual Conference.

**Weinersmith KL**, Nadler LE, Helland-Riise SH, Dusto J, Bengston E, Turner A, Øverli Ø and Hechinger RF (2018). The influence of *Euhaplorchis californiensis* on California killifish (*Fundulus parvipinnis*) behavior across contexts and ontogeny. Oral Presentation. American Society of Parasitologists Conference. Cancun, Mexico.

**Helland-Riise SH**, Turner AV, Bengston E, Vindas MA, Johansen IB, Nadler L, Weinersmith KL, Hechinger RF and Øverli Ø (2018). Behavioral differences in California killifish experimentally

infected with the brain parasite *Euhaplorchis californiensis*. Oral Presentation. Society for Experimental Biology Conference. Florence, Italy.

\***Cottingham SL**, Ringelman KM, Stroud CM and Weinersmith KL (2018). Gastrointestinal helminth abundance in lesser scaup (*Aythya affinis*) wintering on Lake Pontchartrain, Louisiana. Oral Presentation. American Society of Parasitologists Conference. Cancun, Mexico.

\***Cottingham SL**, Ringelman KM, Stroud CM and Weinersmith KL (2018). Gastrointestinal helminth abundance in lesser scaup (*Aythya affinis*) wintering on Lake Pontchartrain, Louisiana. Oral Presentation. Southeastern Society of Parasitologists. Mississippi State University. Starkville, MS.

\***Cottingham SL**, Stroud CM, Weinersmith KL, and Ringelman KM (2017). Gastrointestinal helminth abundance in lesser scaup (*Aythya affinis*) wintering on Lake Pontchartrain, Louisiana. Poster Presentation. Louisiana Wildlife Society.

*Winner of the Gamma Sigma Delta's Undergraduate Research Grant Poster Award (first place) & the Agriculture Residential College Student's Choice Award.*

**Weinersmith KL**, Liu SM, Forbes AA, and Egan SP (2016). Tales from the Crypt: A parasitoid changes emergence behavior in a crypt-forming gall wasp. Oral Presentation. American Society of Parasitologists conference.

**Weinersmith KL**, Renick VC, King T, Payne E, Sih A, and Earley RL. (2015). Does a brain-infecting parasite influence host behavioral type and behavioral correlations? Oral presentation. American Society of Parasitologists conference.

**Weinersmith KL**. Science outreach through blogging and podcasting (2015). Invited talk for the American Society of Parasitologists Students' Symposium.

Weinersmith KL, Warinner CB, Tan V, Harris DJ, Mora AB, Kuris AM, Lafferty KD and **Hechinger RF** (2014). A lack of crowding? Density does not negatively affect parasite body size for two trophically transmitted trematodes of California killifish (*Fundulus parvipinnis*). Oral presentation. American Society of Parasitologists conference.

**Weinersmith KL**, Hanninen AF, Sih A and Earley RL. *Euhaplorchis californiensis*, a brain-infecting trematode parasite, is associated with changes in physiology and behavior in its killifish second intermediate host (2014). Oral presentation. Society for Integrative and Comparative Biology-Symposium: Parasitic manipulation of host phenotype or how to make a zombie.

**Grace J\***, Haddock M, Weinersmith K & Earley RL. Parasite manipulation of host personality in California killifish (2013). Poster presentation. University of Alabama Undergraduate Research Conference.

**Haddock M\***, Grace J, Weinersmith K & Earley RL. Parasites and personality: do trematodes manipulate boldness in California killifish (2013)? Poster presentation. University of Alabama Undergraduate Research Conference.

**Weinersmith KL**, Earley RL, Hanninen AF, Hechinger RF, Kuris AM, Lafferty KD and Sih A. Two manipulative trematode parasites modify the physiology and behavior of California killifish (*Fundulus parvipinnis*) (2012). Oral presentation. American Society of Parasitologists

conference. \*Received the Outstanding Student Paper Award from the American Society of Parasitologists.

**Weinersmith KL**, Cote J, Fogarty S, Brodin T, and Sih A. Personality matters: individual and population-level personality traits influence dispersal decisions in the invasive western mosquitofish (*Gambusia affinis*) (2011). Oral presentation. American Fisheries Society Conference: Symposium on "Cognitive, Sensory, and Behavioural Frontiers Exploring Fish Movement and Habitat Use".

Conrad JL, **Weinersmith KL**, Young MJ, de Carion D, Bibian A, Moyle PB and Sih A. Invaders helping invaders: Expansion of largemouth bass in the Sacramento-San Joaquin Delta facilitated by Brazilian waterweed, *Egeria densa* (2011). Oral presentation. American Fisheries Society Conference: Symposium on "Cognitive, Sensory, and Behavioural Frontiers Exploring Fish Movement and Habitat Use".

**Weinersmith KL**, Hanninen A, Sih A and Earley RL. Trematode parasites are associated with steroid hormone profiles in California killifish (2011). Oral presentation. Animal Behavior Society Conference.

**Weinersmith KL**, Conrad JL, Young MJ, de Carion D, Bibian B and Sih A. Does submerged aquatic vegetation effect largemouth bass diet composition and growth rates in the Sacramento-San Joaquin Delta (2011)? Oral presentation. Cal-Neva American Fisheries Society Conference: Interagency Ecological Program Symposium.

**Conrad JL**, Weinersmith KL, Young MJ, de Carion D, Hestir EL, Santos MJ, Crain P, Ustin SL, Moyle PB and Sih A. More big bass: understanding the role of largemouth bass as top predators of the littoral zone (2010). Oral Presentation. Bay-Delta Science Conference.

**Smith KL**, Wiegmann DD and Seubert S. Multi-attribute mate choice decisions and uncertainty in the decision process: A generalized sequential search strategy (2008). Oral presentation. Animal Behavior Society Conference.

**Smith KL**, Wiegmann DD and Seubert S. Multi-attribute mate choice decisions and uncertainty in the decision process: A generalized sequential search strategy (2008). Oral presentation. Animal Behavior Conference at the University of California Davis.

**Smith KL**, Wiegmann DD and Seubert S. Multi-attribute mate choice decisions and uncertainty in the decision process: A generalized sequential search strategy (2008). Oral presentation. Trout Lake Research Station Limnology and Marine Science Seminar Series.

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