Sam Slowinski

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POSTDOCS, INCLUDING CURRENT POSITION

2020 to present	Postdoctoral Scholar in the Department of Biology, University of Maryland, College Park Advisor: Emily Bruns
2017-2020	Postdoctoral Scholar in the Integrative Biology Program, University of California, Berkeley Advisor: Michael Shapira

EDUCATION

Ph.D.	Indiana University, Evolution, Ecology, and Behavior, Advisors: Ellen Ketterson and Curt Lively, August 2017
BA	Oberlin College, Biology, Advisor: Mary Garvin, June 2010

PUBLICATIONS (* indicates undergraduate co-author who I mentored)

Manuscripts under review

3 **Slowinski, S.,** Gresham, Jennifer, Penley, McKenna, Lively, Curtis, Morran, Levi. Outcrossing increases resistance against coevolving parasites. In Review, Evolution

2 Chen, D., **Slowinski, S.,** Kido, A., Bruns, E. High temperatures reduce growth, infection, and transmission of a naturally occurring fungal plant pathogen. In Review, Ecology.

1 **Slowinski, S., ***Cui, E., Gresham, J., Lively, C., Morran, L. Outcrossing in *Caenorhabditis elegans* increases in response to food limitation. In Review, Ecology and Evolution.

Peer-reviewed publications

10 **Slowinski, S.**, Cho, J, Penley, M, Alexander, L, Greenberg, A, Namburar, S, Morran, L. **2023**. High parasite virulence necessary for the maintenance of host outcrossing via parasite-mediated selection. Evolution Letters.

9 **Slowinski, S.**, Geissler, A.*, Gerlach, N., Heidinger, B., Ketterson, E. **2022**. The probability of being infected with haemosporidian parasites increases with host age but is not affected by experimental testosterone elevation in a wild songbird. Journal of Avian Biology.

8 Heidinger, B., **Slowinski S.**, Sirman, A., Kittilson, J., Gerlach, N., Ketterson, E. **2021**. Experimentally elevated testosterone shortens telomeres across years in a free-living songbird. Molecular Ecology.

7 **Slowinski, S.**; Ramirez, I*., Narayan, V*., Somayaji, M.*, Para, M.*, Pi, S.*, Jadeja, N.*, Karimzadegan, S.; Pees, B.; Shapira, M. **2020**. Interactions with a complex microbiota mediate a trade-off between the host development rate and heat stress resistance. Microorganisms 8, 1781.

6 Whittaker, D., **Slowinski, S.,** Greenberg, J., Alian, O., Winters, A., Ahmad, Madison., Soini, H., Ketterson, E., Theis, K. **2019**. Experimental evidence that symbiotic bacteria produce chemical cues in a songbird. Journal of Experimental Biology.

5 **Slowinski**, **S. P.**, Fudickar, A. M., Hughes, A., Mettler, R. D., Gorbatenko, O. V., Spellman, G. M., Ketterson, E. D., Atwell, J. W. **2018**. Sedentary songbirds maintain higher prevalence of parasite infections than migratory conspecifics during seasonal sympatry. PLOS ONE.

4 Garvin, M. C., A. L. Austin, N. H. Stracker, **S. P. Slowinski**, J. E. Rutter, M. Butler, M. Michel, and R. J. Whelan. **2018**. Attraction of *Culex pipiens* to uropygial gland secretions does not explain feeding preference for American robins. Journal of Vector Ecology **43**:110-116.

3 Whittaker, D. J., K. A. Rosvall, **S. P. Slowinski**, H. A. Soini, M. V. Novotny, and E. D. Ketterson. **2018**. Songbird chemical signals reflect uropygial gland androgen sensitivity and predict aggression: implications for the role of the periphery in chemosignaling. Journal of Comparative Physiology a-Neuroethology Sensory Neural and Behavioral Physiology **204**:5-15.

2 **Slowinski, S.[1],** Morran, L.[1], Parrish, R.*, Cui, E.*, Bhattacharya, A., Lively, C., and Phillips, P. **2016**. Coevolutionary interactions with parasites constrain the spread of self-fertilization into outcrossing host populations. Evolution **70**:2632-2639.
[1]Equal author contribution

1 Whittaker, D. J., N. M. Gerlach, **S. P. Slowinski**, K. P. Corcoran, A. D. Winters, H. A. Soini, M. V. Novotny, E. D. Ketterson, and K. R. Theis. **2016**. Social environment has a primary influence on the microbial and odor profiles of a chemically signaling songbird. Frontiers in Ecology and Evolution **4**.

Book chapters

1 Choi, R.[1], Kim, D.[1], Li, S.[1], Massot, M.[1], Narayan, V.[1], **Slowinski, S.[1],** Schulenburg, H., Shapira, M. **2020**. Extra-intestinal regulation of the gut microbiome: The case of *C. elegans* TGFβ/SMA signaling. Cellular Dialogues in the Holobiont, Chapter 8, edited by Thomas Bosch and Michael Hadfield.

RESEARCH GRANTS

2016 American Ornithologists Union Research Award ($2,344)
2016 Indiana Academy of Sciences Senior Research Grant ($2,344)
2016 American Society of Naturalists Student Research Award ($2,000)
2016 Animal Behavior Society Student Research Grant ($1,000)
2015 Society for Integrative and Comparative Biology Grant in Aid of Research ($1,000)
2015 Indiana University Graduate and Professional Student Organization Research Award ($1,000)
2013 Sigma Xi, Grant in Aid of Research Award ($1,000)
2013 Society for the Study of Evolution, Rosemary Grant Award ($2,250)

FELLOWSHIPS AND TRAVEL AWARDS

Fellowships
2016 National Institute of Health Common Themes in Reproductive Diversity Predoctoral Fellowship
2015 Margaret Walton Scholarship for Mountain Lake
2015 Center for the Integrative Study of Animal Behavior Predoctoral Fellowship
2014 NIH Common Themes in Reproductive Diversity Predoctoral Fellowship
2014 Margaret Walton Scholarship for Mountain Lake
2013 Oberlin College Alumni Fellowship

Travel Awards

2016	Finalist for the W. D. Hamilton Award for Outstanding Student Presentation, Society for the Student of Evolution, Austin, TX (all finalists received travel funding)
2016	Indiana University Biology Departmental Travel Award
2016	Indiana University Center for Integrative Study of Animal Behavior, Travel Award
2016	North American Ornithological Conference, Student Travel Award
2015	Indiana University Biology Departmental Travel Award
2014	Indiana University Biology Departmental Travel Award
2014	Indiana University Center for Integrative Study of Animal Behavior, Travel Award
2013	Indiana University Center for Integrative Study of Animal Behavior, Travel Award

TEACHING

Guest lectures

2022	Three guest lectures covering Hardy-Weinberg equilibrium and the mechanisms of evolution for Dr. Emily Bruns' BSCI160 (Introductory Biology), University of Maryland
2022	Guest lecture on host-parasite coevolution and the maintenance of sex for Dr. Emily Bruns' class BSCI477 (Ecology and Evolution of Infectious Diseases), University of Maryland
2018 and 2019	Guest lecture on host-parasite coevolution and the maintenance of sexual reproduction for Dr. Michael Shapira's class IB118 (Host-Microbe Interactions), UC Berkeley
2017	Guest lecture on the evolution of sex for Dr. Carl Weinberg's undergraduate class A379 (History of the Evolution Controversy), Indiana University
2016	Guest lecture on olfaction in birds for Dr. Ellen Ketterson's undergraduate class L376 (Biology of Birds), Indiana University
2013	Guest lecture on the mechanisms of evolution for L113 (Introductory Biology Laboratory), Indiana University

Teaching appointments

2016	Graduate Student Instructor for A502, Research and Professional Ethics for the Bio-behavioral Sciences, Indiana University
2015	Graduate Student Instructor for P451, Human Physiology, Indiana University
2014	Graduate Student Instructor for L376, Biology of Birds, Indiana University
2013	Graduate Student Instructor for Z375, Invertebrate Biology Laboratory, Indiana University
2013	Biology Instructor for Indiana University Foundations in Science and Mathematics Summer Program for Local High School Students
2011-2012	Graduate Student Instructor for L113, Introductory Biology Laboratory, Indiana University

UNDERGRADUATES MENTORED

[*]Received funding from a grant or fellowship application that I supervised
[#]Included as an author on my publications
[%]Completed honors thesis under my mentorship
@Presented research at a scientific meeting

University of Maryland: Dalia Chen[*@], Eirena Li[*%@], Hailey Papagjika[@]

UC Berkeley: Niharika Jadeja[#], Sarah Pi[#], Medha Somayaji[#], Maya Para[#], Isabella Ramirez[#], Vivek Narayan[#*]

Indiana University: Domonique Jackson, Eric Cui[*#%], Raymond Parish[#], Aidan Geissler[#*], Virnaliz Cruz, Kaitlin Alford

OUTREACH/ SERVICE

2023	Awarded a Sustainability Mini-Grant ($1,500) from the University of Maryland to establish a hiking trail through a wooded area on the University of Maryland Campus, and to provide tree identification signs and signs about the local woodland animals along the trail. Establishment of the trail and signage is an ongoing effort that I am organizing and supervising with volunteers

	from the Bruns Lab and from the Environment, Technology, and Economy Scholars Program at UMD.
2023 to present	Voting member of the City of College Park's Bicycle and Pedestrian Advisory Committee
2023 to present	Organized and coordinated a weekly lunch for postdocs in the Behavior, Ecology, Evolution, and Systematics program at the University of Maryland to network and socialize
2023	Presented my research in the greenhouse to groups of students from Suitland Elementary, a local public school in Maryland
2022 and 2023	Animal treasure hunt outreach activity for children at University of Maryland "Maryland Day"
2019	Organized and led a tour of the Shapira Lab and microscopy activities for a group of local high school students
2018	Organizer for a program to bring students and teachers from public Wisconsin High Schools to attend, for a day, a conference on stress and aging in *C. elegans*. I also served as a mentor for a high school student through this program.
2018	Presented my research at a Science Teacher Professional Development Workshop to a group of teachers who focus on science instruction in public elementary schools in Berkeley, CA.
2015 and 2016	Leader of hands-on interactive birding activities and live-bird handling for Wondercamp, a summer science enrichment program for elementary students in Bloomington, IN
2015 and 2016	Volunteer at Indiana University's "Science Fest", an annual program for kids and parents to come learn about science at Indiana University. I led an activity in which kids could try capturing food with bird beak models to see how beak shape matches diet.
2012-2016	Mentor for the Groups Scholars Program STEM Initiative to promote and enhance the experiences of first-generation, underrepresented students in STEM, Indiana University
2012-2013	Biology tutor for a student at IV Tech Community College
2012	Coach for the *'Designer Genes'* Science Olympiad team, Bloomington High School South
2012	Wonderlab (children's science museum) volunteer

PRESENTATIONS AND POSTERS

Contributed presentations

2023	Southeastern Population Ecology and Evolutionary Genetics Conference, Mountain Lake Biological Station, Pembroke, Virginia
2023	Evolution Annual Meeting, Albuquerque, New Mexico
2022	Mid-Atlantic Section American Society of Plant Biologists Annual Meeting, College Park, MD
2021	University of Maryland Behavior, Ecology, Evolution, and Systematics Departmental Retreat, Thurmont, MD
2020	International Anther-Smut Symposium, Virtual Meeting

2019	Berkeley Ecology and Evolution of Infectious Disease Seminar Group, UC Berkeley, Berkeley, CA
2017	Center for the Integrative Study of Animal Behavior annual meeting, Indiana University, Bloomington, IN
2017	Common Themes in Reproductive Diversity breakfast seminar series, Indiana University
2016	Indiana University, Evolution, Ecology, and Behavior Brown Bag Seminar Series
2016	Evolution annual meeting, Austin, TX
2016	Evolution Discussion Group. Indiana University, Bloomington, IN
2014	Third International Malaria Research Coordination Network Workshop on Malaria and Related Haemosporidian Parasites of Wildlife, Shepherdstown, WV
2014	Evolution annual meeting, Raleigh, NC
2014	Common Themes in Reproductive Diversity breakfast seminar series, Indiana University
2013	Indiana University, Evolution, Ecology, and Behavior Brown Bag Seminar Series

Posters

2023	Ecology and Evolution of Infectious Diseases, Penn State University, State College, PA
2022	University of Maryland Behavior, Ecology, Evolution, and Systematics Departmental Retreat, Thurmont, MD
2022	Ecology and Evolution of Infectious Diseases, Emory University, Atlanta, GA.
2019	International *C. elegans* Conference, University of California, Los Angeles, CA.
2019	Bay Area Worm Meeting, University of California, Berkeley, CA.
2018	*C. elegans* topic meeting Aging, Metabolism, Stress, Pathogenesis, and Small RNAs. Madison, WI.
2018	Bay Area Worm Meeting, University of California, Santa Cruz, CA.
2016	North American Ornithological Conference. Washington, D.C.
2016	Ecology and Evolution of Infectious Diseases Annual Meeting, Ithaca, NY.
2015	Ecology and Evolution of Infectious Diseases Annual Meeting, Athens, GA.
2015	CISAB Animal Behavior Conference, Indiana University, Bloomington, IN.
2014	The American Ornithologists Union Annual Meeting, Estes Park Colorado.
2013	The Society for Integrative and Comparative Biology Annual Meeting. San Francisco, CA.
2013	CISAB Animal Behavior Conference, Indiana University, Bloomington, IN.

PROFESSIONAL SERVICE

Review/editor services for scientific journals

2021 to present Review Editor on the Editorial Board of Coevolution for Frontiers in Ecology and Evolution
Act as a regular reviewer, working collaboratively authors and editors to improve manuscripts

Other manuscript reviews

2022	Philosophical Transactions of the Royal Society B
2022	Ornithology
2021	BMC Ecology and Evolution (review jointly written with postdoc advisor Emme Bruns)
2020	Frontiers in Cellular and Infection Microbiology (review jointly written with Michael Shapira's Lab)
2018	Journal of Field Ornithology
2017	Evolutionary Biology
2017	International Society for Microbial Ecology (ISME) Journal (review jointly written with postdoc advisor Michael Shapira)
2015	Ethology
2014	Chemical Signals in Vertebrates
2013	Nature Communications (review jointly written with Levi Morran)

Peer review for grant and fellowship committees

2017 National Fellowships Committee for Graduate Women in Science

Organizing conferences, judging presentations, panel discussions

2017, 2016, 2015, 2013	IU Center for the Integrative Study of Animal Behavior (CISAB) Conference, Poster Committee
2016	IU CISAB Conference, Undergraduate Poster Judge
2015	IU CISAB REU program panelist for a session about grad student life
2014	IU CISAB Animal Behavior Conference, Program Committee

RESEARCH INTERNSHIPS (PRE-GRAD SCHOOL)

2011	Research intern, Archbold Biological Station, supervised by Reed Bowman
2010	Research assistant supervised by Mary Garvin, Oberlin College
2010	Research intern supervised by Randall Hughes and David Kimbro, Florida State University Coastal and Marine Laboratory
2009	Research intern supervised by Anne Royer and Jeffrey Conner, Kellogg Biological Station, Michigan State University
2009	Research intern supervised by Mark Frey, The Presidio Trust of San Francisco
2008	Research intern supervised by Walter Tschinkel, Florida State University

PROFFESIONAL DEVELOPMENT

2014 Third International Malaria Research Coordination Network Workshop on Malaria and Related Haemosporidian Parasites of Wildlife, Shepherdstown, WV

PROFESSIONAL REFERENCES

Emily Bruns, Postdoctoral Advisor, University of Maryland, ebruns@umd.edu, 301-405-5475, University of Maryland Department of Biology, 1204 Biology-Psychology Building, College Park, MD 20742-4415

Ellen Ketterson, Graduate Advisor, Indiana University, ketterso@indiana.edu, 812-855-6837/5-1096(lab) Indiana University Department of Biology, Jordan Hall, 1001 E. 3rd St., Bloomington, IN 47405

Curt Lively, Graduate Advisor, Indiana University, clively@indiana.edu, 812-855-1842/5-3282(lab) Indiana University Department of Biology, Jordan Hall, 1001 E. 3rd St., Bloomington, IN 47405

Levi Morran, Research Mentor, Emory University, levi.morran@emory.edu, 404-727-7092, Emory University, Department of Biology, O. Wayne Rollins Research Center, 1510 Clifton Road NE, Atlanta, GA 30322