

# ADAM ZVANUT HASIK

## CURRICULUM VITAE

Institute of Evolutionary Biology  
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### RESEARCH INTERESTS

Disease Ecology, Food-Webs, Host-Parasite Interactions, Community Ecology, Biogeography, Microevolution, Macroevolution, Host-Parasite Coevolution, Evolvability.

### POSTDOCTORAL WORK

Postdoctoral Research Associate, Institute of Evolutionary Biology, University of Edinburgh, Edinburgh, Scotland. July 2023 – Present. Advisor: Dr. Josephine M. Pemberton.

Zuckerman Postdoctoral Scholar, Mitrani Department of Desert Ecology, Ben-Gurion University of the Negev, Midreshet Ben-Gurion, Israel. October 2021 – July 2023. Advisor: Dr. Hadas Hawlena.

### EDUCATION

Ph.D. in Biology, July 2021, University of Arkansas, Fayetteville, AR, USA. Advisor: Dr. Adam M. Siepielski.

M.Sc. in Ecology, August 2016, University of Bremen, Bremen, Germany. Advisor: Dr. Erik I. Svensson.

B.S. in Biological Sciences, May 2013, University of Missouri, Columbia, MO, USA.

### PROFESSIONAL HISTORY

Teaching Assistant, Department of Biology, University of Arkansas, 2016-2018, 2019-2021.

Research Assistant, Department of Biology, University of Arkansas, 2018-2019.

Field Technician, Department of Biology, Evolutionary Ecology Unit, Lund University, 2015. Long term study of damselfly population morph frequencies.

Field Technician, Department of Biology, University of Missouri, 2012-2013. Reproduction dynamics of multiple frog species in Missouri.

### PUBLICATIONS

Rodríguez-Pastor\*, R.; **Hasik, A.Z.\***; Knossow, N.; Shahar, N.; Bar-Shira, E.; Gutiérrez, R.; Zaman, L.; Harrus, S.; Lenski, R.E.; Barrick, J.E.; Hawlena, H. *Bartonella* infections are prevalent in rodents despite efficient immune responses. *Parasites & Vectors*, 16:315

\*Co-first author

**Hasik, A.Z.**; King, K.C; Hawlena, H. 2023. Interspecific host competition and parasite virulence evolution. *Biology Letters*, 19: 20220553.

**Hasik, A.Z.**; de Angeli Dutra, D.; Doherty, J.F.; Duffy, M.; Poulin, R.; Siepielski, A.M. 2023. Resetting our expectations for parasites and their effects on species interactions: a meta-analysis. *Ecology Letters*, 26:184-199.

**Hasik, A.Z.**; Siepielski, A.M. 2022. Parasitism shapes selection by drastically reducing host fitness and increasing host fitness variation. *Biology Letters*, 18: 20220323.

**Hasik, A.Z.**; Siepielski, A.M. 2022. A role for the local environment in driving species-specific parasitism in a multi-host parasite system. *Freshwater Biology*, 67: 1571-1583.

**Hasik, A.Z.**; Tye, S.P.; Ping, T., Siepielski, A.M. 2021. A common measure of prey immune function is not constrained by the cascading effects of predators. *Evolutionary Ecology*.

Siepielski, A.M., **Hasik, A.Z.**, Ping, Taylor, Serrano, Mabel, Strayhorn, Koby, Tye, Simon P. 2020. Predators weaken prey intraspecific competition through phenotypic selection. *Ecology Letters*, 23: 951-961

Ousterhout, B., Graham, S., **Hasik, A. Z.**, Serrano, M., and Siepielski, A.M. 2018. Past selection impacts the strength of an aquatic trophic cascade. *Functional Ecology*, 32:1554–1562

Siepielski, A.M., **Hasik, A. Z.**, Ousterhout, B. 2018. An ecological and evolutionary perspective on coexistence under global change. *Current Opinion in Insect Science*, 29:71-77

## MANUSCRIPTS SUBMITTED/IN PREP

Albery, G.F.; **Hasik, A.Z.**; Morris, S.; Morris, A.; Kenyon, F.; McBean, D.; Pemberton, J.M.; Nussey, D.H.; Firth, J.A. Age-related changes in parasite infection occur independently of behavioural ageing in a wild ungulate. In revision at *Philosophical Transactions of the Royal Society B*.

**Hasik, A.Z.**; Bried, J.; Bolnick, D.I.; Siepielski, A.M. Is the local environment more important than within-host interactions in determining coinfection? In revision at the *Journal of Animal Ecology*.

Rodríguez-Pastor, R.; Knossow, N.; Shahar, N.; **Hasik, A. Z.**; Deatherage, D.E.; Gutiérrez, R.; Harrus, S.; Zaman, L.; Lenski, R.E.; Barrick, J.E.; Hawlena, H. Parasite contingency loci and the evolution of host specificity: *Bartonella krasnovii* adaptation to a rodent host is dominated by mutations in simple-sequence repeats in an adhesin gene. Submitted to *Nature Communications*.

**Hasik, A.Z.**; Ilvonen, J.; Suhonen, J.; Beaulieu, J.; Poulin, R.; Siepielski, A.M. Linking parasitism to host diversification. Under review as an invited Opinions article in *Trends in Ecology and Evolution*.

**Hasik, A.Z.**; Albery, G.F.; Morris, S.; Morris, A.; Maris, K.; Butt, S.; Turner, R.; Pemberton, J.M. Population density drives increased parasitism via greater exposure and reduced resource availability in wild deer. In prep for submission to *Ecology Letters*.

McTamney, J.M.; **Hasik, A.Z.\***; Lutermann, H.\*. Your personality is infectious: a meta-analysis of host personality and parasitism. In prep for submission.

**\*Co-senior author**

Gómez-Llano, M.; **Hasik, A.Z.**; Joshi, S.; Ping, T.; Powell, D.; Tye, S.; Siepielski, A.M. Apparent maladaptation to predators promotes local competitor coexistence. In prep for submission.

## BOOK CHAPTERS

**Hasik, A. Z.**, Ilvonen, J. I., Siepielski, A. M., and Murray, R.L. 2023. Odonata Immunity, Pathogen, and Parasites. In *Dragonflies and Damselflies: Model Organisms for Ecological and Evolutionary Research*, 2nd edition. Ed. Aguilar, A., Bried, J. Beatty, C., and C. Suarez-Tovar. Oxford Press, London, UK.

Siepielski, A. M., Gomez-Llano, M., and **Hasik, A. Z.** 2023. Evolutionary Community Ecology of Odonates. In *Dragonflies and Damselflies: Model Organisms for Ecological and Evolutionary Research*, 2nd edition. Ed. Aguilar, A., Bried, J. Beatty, C., and C. Suarez-Tovar. Oxford Press, London, UK

## **AWARDS RECEIVED**

Jacob Blaustein Center for Scientific Cooperation Travel Grant (2022) - \$500

The Central Fund for Advanced Study (2022) - \$1,000.

Mortimer B. Zuckerman STEM Leadership Program Postdoctoral Fellowship (2021) - \$100,000.

Professor Delbert Swartz Endowed Graduate Fellowship (2019) - \$1,300.

## **PRESENTATIONS**

### **Invited**

University of Edinburgh, Edinburgh, Scotland (2023)

University of Neuchâtel, Neuchâtel, Switzerland (2023)

Stanford University, Palo Alto, USA (2023)

Ben-Gurion University of the Negev, Midreshet Ben-Gurion, Israel (2022)

University of Oxford, Oxford, England (2021)

Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin, Germany (2021)

Norwegian University of Science and Technology, Trondheim, Norway (2020)

### **Contributed**

International Congress on Parasites of Wildlife, Kruger National Park, South Africa (2022): "Evolutionary drivers of bacterial dynamics among sympatric host species". Authors: A. Z. Hasik, R. Rodríguez-Pastor, H. Hawlena

Ecological Society of America, Louisville, KY (2019): "The effects of parasites on species interactions" Authors: A. Z. Hasik, A. M. Siepielski.

Ecological Society of America, New Orleans, LA (2018): "The role of predation and competition in mediating host-parasite interactions." Authors: A. Z. Hasik, A. M. Siepielski.

## **PEER REVIEWER FOR:**

Philosophical Transactions of the Royal Society B, Nature Ecology & Evolution, The American Naturalist, PLoS ONE, Freshwater Biology, Evolutionary Ecology, Oecologia, PeerJ, Parasitology

## **TEACHING EXPERIENCE**

*University of Arkansas (2016-2021)*

Principles of Biology: (Lab Instructor) – Introductory biology course with lab-based activities and experiments

Human Anatomy: (Lab Instructor) – Practical overview of human anatomy including dissections of preserved specimens

## **PROFESSIONAL SOCIETIES:**

British Ecological Society, European Society of Evolutionary Biology, Ecological Society of America, Society for the Study of Evolution, Dragonfly Society of the Americas

## **OUTREACH**

Ecology for the Masses (2018-2022) – Website focused on bringing ecology to the non-scientific public. I, along with my coauthors on the website, break down recent ecology research, interview prominent ecologists, and bring attention to current issues in ecology.

Cinematica Animalia (2018-2022) – Podcast focused on breaking down the science behind monster movies. I, along with my co-hosts, discussed the physiology and ecology of the various creatures from cinema.

Field Day at Lake Atalanta (2018-2019) – In the spring semesters I joined other graduate students from the University of Arkansas to work with local elementary school students. We show them a variety of scientific techniques including how to ID a stream, using microscopes to find diatoms, and other activities such as a scavenger hunt, nature walk, and arts and crafts with animal tracks.

## **REFEREES**

Dr. Adam M. Siepielski (PhD advisor)  
Associate professor  
Department of Biological Sciences  
University of Arkansas  
Fayetteville, AR, USA 72701  
Email: [amsiepie@uark.edu](mailto:amsiepie@uark.edu)

Dr. Miguel Gómez-Llano  
Assistant lecturer  
Department of Biology  
Karlstad University  
Karlstad, Sweden CH4M+H2

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Dr. Erik I. Svensson (Master's advisor)  
Professor  
Department of Biology - Evolutionary Ecology Unit  
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