Ze-Yi Han

Curriculum Vitae| 2024

PhD Candidate
Department of Biology
Gibert Lab
Duke University

Biological Sciences Building (rm 168)
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EDUCATION

2019-Present **Duke University Program in Biology**
Ph.D. Candidate Biology
Advisor: Dr. Jean-Philippe Gibert

2015-2019 **College of William and Mary**
B.S. Biology, Dean's List
Honor Thesis: *The Effects of Intra- and Interspecific Phenotypic Variations for Competition in Freshwater Zooplankton*
Advisor: Dr. Jelena Pantel

2017 **KU Leuven**
Visiting Scholar Biology
Advisor: Dr. Luc De Meester

PUBLICATIONS & MANUSCRIPTS

Complete manuscript available upon request for *In Prep.* MSs

7. **Han, Z.-Y.,** Y. Yuan, K. DeWitt, D.J. Wieczynski, A. Yammine, M. Onishi & J.P. Gibert. Temperature alone is not enough: food-web context determines evolutionary responses to warming. *(In Prep.)* Preprint: doi: 10.1101/2024.05.06.592770
6. Liu, M., **Z.-Y. Han**, Y. Yuan, K. DeWitt, D. J. Wieczynski, K. M. Yammine, A. Yammine, R. Zufall, A. Siepielski, D. Chalker, M. Onishi, F. A. Machado, J. P. Gibert. Rapid adaptive evolution of microbial thermal performance curves. *(In Revision)*
5. Wieczynski, D. J.,M. M. Giglietti,N. Sortisio, E. Bruscato, A. Goel, L, Tjossem, H. Yao, A. Yammine, **Z.-Y.Han**, Y. Yuan, M. Onishi, V. Ciocanel,J. P. Gibert. Gibert. Intraspecific reaction norm variation directs eco-evolutionary responses to environmental change. (In Review). Preprint: doi: 10.22541/au.172535909.98028038/v1
4. **Han, Z.-Y.**, D. J. Wieczynski, A. Yammine, & J. P. Gibert. Temperature and nutrients drive complex eco-phenotypic dynamics in a microbial food web. (2023). *Proceedings of the Royal Society B*, 290,1992. doi: 10.1098/rspb.2022.2263
3. Gibert, J. P., D. J. Wieczynski, **Z.-Y. Han**, A. Yammine. Rapid eco-phenotypic feedbacks and the temperature response of biomass dynamics. (2023). *Ecology and Evolution*, 13, 1. doi: 10.1002/ece3.9685
2. Gibert, J. P., **Z.-Y. Han**, D. J. Wieczynski, S. Votzke, A. Yammine. Feedbacks between size and density determine rapid eco-phenotypic dynamics. (2022). *Functional Ecology*, 36, 7, 1668-1680. doi: 10.1111/1365-2435.14070

1. Wieczynski, D. J., P. Singla, A. Doan, A. Singleton, **Z.-Y. Han**, S. Votzke, A. Yammine, & J. P. Gibert. (2021). Linking species traits and demography to explain complex temperature responses across levels of organization. *Proceedings of the National Academy of Sciences*, 118. doi: 10.1073/pnas.2104863118

GRANTS & AWARDS

2024 **Katherine Goodman Stern Fellowship** – Duke University ($30,000)
2023 **Bass Connections Outstanding Mentorship Award** – Duke University (Award announcement and mentee feedback) ($1,500)
2023 **Conference Travel Award** – Duke University ($525)
2023 **Duke Biology Grant-in-Aid of Research** – Duke University ($1,000)
2023 **Bass Connections in Energy and Environment Grant Extention** – Duke University
2023 **Summer Research Fellowship for Third-Year Ph.D. Students and Beyond** – Duke University ($8,415)
2022 - 2023 **Bass Connections in Energy and Environment Grant** – Duke University |Topic: Effects of Climate Change on Microbial Food Webs (Project site and Poster) ($25,000)
2022 **Summer Research Fellowship for Third-Year Ph.D. Students and Beyond** – Duke University ($8,250)
2021 **Duke Biology Grant-in-Aid of Research** – Duke University ($1,000)
2018 **Mary E. Ferguson Memorial Research Grant** – William and Mary ($300)
2018 **Charles Center Summer Research Scholarship** – William and Mary ($3,000)

MEDIA COVERAGE

2023 **Han et al. 2023**, ***Proc. R. Soc. B*** featured in: DOE Office of Science and others.

TEACHING & MENTORSHIP

Training

2022 **Best Practices in Mentoring** GS990-4 Duke Summer Graduate Academy 2022 – Duke University
2022 **Interactive Mentoring Workshop: Isolation and Wellbeing** – Duke University

Experience

2023 **Mentor,** Mentoring Event for STEM Scholars – Meredith College
2023 **Teaching Assitant,** Bass Connection: *Laboratory Techniques for Artistic Practices* – Duke University
2022-2023 **Mentor & Project Lead,** Bass Connections: *Effects of Climate Change on Microbial Food Webs* – Duke University
2023 **Teaching Assitant,** BIO212L *General Microbiology Lab* (BSL2 lab) – Duke University
2022 **Guest Lecturer,** BIO 732 *Food Web Theory (Graduate Levels)* – Duke University
Casade model and Niche model with R codes
2022 **Peer Mentor,** Peer Mentoring Program for First-Year Ph.D. Students, Program Website – Duke University

2022 **Teaching Assitant,** BIO209 *Ecology for a Crowded Planet* – Duke University
2022 **Teaching Assitant,** BIO212L *General Microbiology Lab* (BSL2 lab) – Duke University
2021 **Teaching Assitant,** BIO212L *General Microbiology Lab* (BSL2 lab) – Duke University
2021 **Teaching Assitant,** BIO346 *Symbiosis: From organelles to microbiomes* – Duke University

Mentees

2023-present **Sloane McGuire** – Undergraduate research, Duke University
2023-present **Ashleigh Waterman** – Undergraduate research, Duke University
2023-present **Ngozi Iloh** – Undergraduate research, Duke University
2021-present **Megan Liu** – Research associate & Undergraduate research, Duke University
2022-2023 **Luca Tjossem** – BASS Connections student team member, Duke University
2022-2023 **Enzo Bruscato** – BASS Connections student team member, Duke University
2022-2023 **Nick Sortisio** – BASS Connections student team member, Duke University
2022-2023 **Matilde Molinari Giglietti** – BASS Connections student team member, Duke University
2022-2023 **Anushka Goel** – BASS Connections student team member, Duke University
2022-2023 **Haipei(Happy)Yao** – BASS Connections student team member, Duke University
2022 **Miao Hu** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Fayrouz Elwesmi** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Katryna Niva** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Shuoyi Li** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Kyungdo Kim** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Junlin Wang** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Jonathan Ku** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Hassan Alkhunaizi** – Peer Mentoring Program for First-Year Ph.D. Students, Duke University
2022 **Heather Raslan** – Undergraduate research (Duke University)
2022 **Supta Das** – Undergraduate research (Duke University)

INVITED TALKS

2024 **Han, Z.-Y.,** Y. Yuan, K. DeWitt, D.J. Wieczynski, A. Yammine, M. Onishi & J.P. Gibert. Species interactions drive temperature-dependent prey evolution. 2024 Duke Centennial Ecology Symposium student keynote speaker

PRESENTATIONS

2024 **Han, Z.-Y.**, Y. Yuan, E. Bruscato, L. Tjossem, A. Goel, H. Yao, C.J. Pardo-De la Hoz, D. J. Wieczynski, M. Onishi, A. Yammine, J. P. GibertPredator richness and prey genetic variation jointly drive prey rapid evolution. 2024 Biology departmental EEOB seminar, Duke University.
2023 **Han, Z.-Y.,** Y. Yuan, K. DeWitt, D.J. Wieczynski, A. Yammine, M. Onishi & J.P. Gibert. Temperature mediates prey evolution through predator thermal performance. 2023 Annual Meeting of the Ecological Society of America

2021 **Han, Z.-Y.,** D.J. Wieczynski, A. Yammine, J.P. Gibert.Temperature and nutrients interactively affect ecological and phenotypic dynamics within microbial food webs. 2021 Annual Meeting of the Ecological Society of America (Virtual)

2020 **Han, Z.-Y.,** A. Yammine, J.P. Gibert.Warming and eutrophication interactively mediate experimental food web dynamics. 2020 Annual Meeting of the Ecological Society of America (Virtual)

COMMUNITY INVOLVEMENT and ACADEMIC SERVICE

2023-present **Member,** Action for Justice, Equity and Diversity Committee (AJED), Department of Biology – Duke University

2023 **Mentor,** Mentoring Event for STEM Scholars – Meredith College

2023 **Activity Leader,** Growing Equity in Science & Technology (GEST) – Duke Marine Lab

2022 **Peer Mentor,** Peer Mentoring Program for First-Year Ph.D. Students Program Website – Duke University

2021-2022 **Team Member,** SciREN (Scientific Research and Education Network) Triangle – Duke University

2017 - 2019 **Peer Advisor,** Peer Advisor Program – College of William and Mary

2016-2019 **Peer Leader,** International Peer Leader Program – College of William and Mary