Ford Josiah Fishman

1001 E. Third Street, Bloomington, IN 47405

ffishman@iu.edu

https://github.com/fordfishman

847-637-7334

EDUCATION

Indiana University, Bloomington, IN

August 2019-Present

Department of Biology

PhD - Evolution, Ecology, and Behavior

Focus in Ecology, Genetics Minor

Advisor: Jay T. Lennon

Hope College, Holland, MI

August 2015–May 2019

BS, Biology, Mathematics Minor

Summa cum laude

Advisors: Aaron Best, K. Greg Murray

RESEARCH EXPERIENCE

PhD Student August 2019—Present

Advisor: Jay T. Lennon Indiana University, Bloomington, IN

Undergraduate Researcher May 2016—May 2019

Advisor: Aaron Best Hope College, Holland, MI

Research Experience for Undergraduate (REU) Student

June—August 2017

Advisor: Zackary Johnson Duke University Marine Laboratory, Beaufort, NC

Hope College Day 1 Phage Discovery Research Student

August 2015—May 2016

Advisors: Aaron Best, Joseph Stukey

Hope College, Holland, MI

FELLOWSHIPS, HONORS & AWARDS

IU Departmental Research Recruitment Fellowship
Phi Beta Kappa
Sigma Xi
Hope College Patterson Memorial Prize in Biology
Beta Beta Beta Biological Honor Society
Hope College Dean's List
Hope College Presidential Scholarship

Spring 2021 May 2019—Present May 2019—Present May 2019 April 2017—Present August 2015—May 2019 August 2015—May 2019

MANUSCRIPTS UNDER REVIEW

Peterson, JW; Fry, BM; Wade, DR; Fishman, FJ; Stid1, JT; Peterson, JM; Tarp1, CE; Wade, RD; Brokus, SA; Pikaart, MJ; Krueger, BP; Best, AA. Application of Point-of-Use Water Filters and Polyurethane Foams as a Global Reconnaissance Method to Characterize Particulates and Heavy Metals in Untreated Drinking Water Sources. Environmental Monitoring and Assessment.

CONTRIBUTIONS*

Anders, KR; Barekzi, N; Best, AA; Frederick, GD; Mavrodi, DV; Vazquez, E; ... Hatfull (2017). Genome Sequences of Mycobacteriophages Amgine, Amohnition, Bella96, Cain, DarthP, Hammy, Krueger, LastHope, Peanam, PhelpsODU, Phrank, SirPhilip, Slimphazie, and Unicorn. Genome Announcements, 5(49), e01202-17. http://doi.org/10.1128/genomeA.01202-17

CONFERENCES ATTENDED

ASM Microbe Online

ASM Microbe

June 2020

June 2019

PRESENTATIONS

Fishman, F & Lennon, J (2020). *Macroevolutionary Constraints on Global Microbial Biodiversity*. Online poster presented at: ASM Microbe Online 2020

Slater, A; Moen, F; Belica, C; Fishman, F; Pearch, A; Peecher, J; Smith, S; Powers, M; Brokus, S; Wade, R; Pikaart, M, Best, A (2019). *Genomic Diversity of* Escherichia *Populations During Baseflow and Quickflow Conditions in a Freshwater Watershed*. Poster presented at: ASM Microbe 2019; 2019 June 18–22; San Francisco, CA.

Fishman, F; Parshall, A; Barrera, N; Binder, P; Huffman, M; Jeavons, A; Klein, A; Kleinheksel, W; Luke, M; Morehead, E; Sanders, C; Slater, A; Tarp, C; Turner B; and Best, A (2017). Seasonal Variation in Microbial Populations in Lake Macatawa Watershed. Poster presented at: Hope College Celebration of Undergraduate Research 2017; 2017 April 21; Holland, MI.

Darnell, A; Downs, E; Draper, R; Fishman, F; Harders, C; Isola, J; Keiser, K; Knight, T; Lindquist, A; Mozdren, S; Obiri-Yeboah, D; Oostindie, M; Pearce, C; Pelyhes, D; Peterson, J; Smith, S; Tobias, T; Vroom, A; Bogolin, M; Fischman, H; Royer, J, Stukey, J; and Best, A (2016). *Isolation of 18 Novel Mycobacteriophages and Genomic Analyses of Krueger and Phrappuccino.* Hope College Celebration of Undergraduate Research 2016; 2016 April 21; Holland, MI.

TEACHING

Associate Instructor
Introductory Biology Lecture (BIOL-L111)
Microorganism Laboratory (BIOL-M215)
Microbiology Laboratory (BIOL-M315)
Indiana University, Bloomington, IN
Fall 2020
Spring 2020
Fall 2019, Spring 2020

Teaching Assistant Hope College, Holland, MI Biology of Microorganisms (BIOL 231) Spring 2019

Peer Tutor for Biology and Chemistry

Hope College, Holland, MI
Fall 2016

MEMBERSHIP & OUTREACH

EcoLunch Committee MemberOrganized ecology-focused seminar series
Indiana University, Bloomington, IN
Fall 2020

Science Fest Presenter
Guided members of public through educational activities
Indiana University, Bloomington, IN
Fall 2020

Explained exhibits and interactive experiences to guests

SKILLS

Computational

- Python, R, Bash, Mathematica, Java, HTML, CSS
- Object-Oriented Programming
- Machine Learning
- Basic Linear Algebra and Differential Equation Analysis
- Operational taxonomic unit (OTU) on MiSeq output with mothur and minimum entropy decomposition (MED)

Laboratory

- DNA filtering, DNA extraction, PCR, and gel electrophoresis
- Dissolved oxygen and suspended solids testing
- Purification and culturing of *E. coli*

Field Work

Collecting biological and chemical water samples