

Bailee Egan

EDUCATION

University of Notre Dame, South Bend, IN

May 2019

- Bachelor of Science, Biological Sciences (concentration: computational biology)
- GPA: 3.741/4.00 Minor: Studio art
- Honors thesis: *Investigating associations between the prokaryotic and eukaryotic microbiomes in long-tailed macaques (Macaca fascicularis)*

RESEARCH EXPERIENCE

Undergraduate research: Notre Dame, IN, August 2016-2019

- Performed research under Dr. Hope Hollocher on microbiomes of long-tailed macaques
- Utilized bioinformatics software in Unix/Python environment to process sequencing data
- Developed scripts to characterize microbiome's richness, variation, and composition
- Analyzed microbiome data in R using various community ecology and visualization packages

Graduate research: Lincoln, NE, August 2019-present

- Assembled of corn rootworm transcriptomes using *de novo* and genome-guided methods
- Identified isoforms of dUTPase and carbon-dioxide receptors in corn rootworms
- Predicted tertiary structures of carbon-dioxide receptors using sequence coevolution methods

PRESENTATIONS

- *Linking the core oral microbiome and gut parasites in Macaca fascicularis from Singapore*, at Midwest Primate Interest Group in Evanston, IL, 2017
- *Comparing the Oral and Gut Microbiomes of Long-Tailed Macaques Across Singapore*, at College of Science Joint Annual Meeting in Notre Dame, IN, 2018
- *Investigating patterns of the gut microbiome in long-tailed macaques*, at Midwest Primate Interest Group in Evanston, IL, 2018
- *Structural prediction of carbon dioxide receptors in western corn rootworm using evolutionary coupling*, at GCMB Seminar at UNL. April 2020.
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HONORS & AWARDS

- Induction into the Notre Dame Biology Honors Program
- College of Science Summer Undergraduate Research Fellowship, 2017 (\$4500)
- College of Science Summer Undergraduate Research Fellowship, 2018 (\$4500)
- UNL SBS Special Funds, 2020 (\$800)

TEACHING EXPERIENCE

- BIOS 101 Lab Teaching Assistant at UNL, Fall 2019
- LIFE 120 Lab Teaching Assistant at UNL, Spring 2020