Gabriel Guzman Blanco



PROJECTS

Butterfly Population Analysis

Link to Project

- Conducted entomological and botanical field research on the Gettysburg National Military Park (2020-2023) and analyzed this data using **R** and **Excel**
- Linked and quantified butterfly population changes to three plant types used in the butterfly life cycle: Nectar plants, larval plants, and warm-season grasses using **R**. Formulated a focus list for local conservation of local butterflies for National Park Service (NPS)
- Currently working on scientific publication of results

Ant Morphology Analysis

Link to Project

- Proposed and tested hypotheses related to ant morphology and resource preference using an existing publicly available data set on ants native to Guadarra Mountains in Spain using **R**
- \bullet Created data visualizations using ${f R}$ in order to showcase statistical relationships and differences in morphological data visually

Professional Experience

Gettysburg College

Gettysburg, PA

- Conducted entomological surveys of butterfly populations in the Gettysburg National Military Park (GNMP) to determine population changes and report results to the National Park Service
- Presented experimental results at the annual scientific symposium at Gettysburg College

SKILLS

Programming Languages Python (pandas, numpy, scikit-learn), SQL (MySQL, PostgreSQL), R (tydiverse, ggplot2, rstatix)

Technologies Git, AWS (S3), NoSQL (MongoDB)

EDUCATION

Gettysburg College

Gettysburg, PA

- <u>Relevant Coursework:</u> Introduction to Scientific Computation (CS 107), Applied Statistics (MATH 107),
 Introduction to Geographic Information Systems (ES 230), Remote Sensing (ES 363)
- Concentration: Environmental Science, GIS and Spatial Analysis & Wildlife and Conservation Ecology
- Minor(s): Biology

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