

# MARISSA OHHRAN

OREM, UT

[marissa.ohran@gmail.com](mailto:marissa.ohran@gmail.com)

<https://m-ohran.github.io>

## EDUCATION

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**Bachelor of Science** – *Utah Valley University, Orem, UT, May 2023*

MAJOR: **BIOINFORMATICS**

MINOR: **BIOLOGY**

### Relevant Courses:

#### COMPUTATIONAL:

- Molecular Evolution and Bioinformatics
- Fundamentals of Programming
- Data Analysis for Biologists
- Genomics
- Bioinformatics Capstone
- Object Oriented Programming
- Global Social and Ethical Issues in Computing
- Database Fundamentals
- Bioinformatics Data Skills
- Introduction to Bioinformatics
- Principles of Statistics
- Guided Research Experience
- Microbiome Bootcamp
- Discrete Math Structures I
- Intro to Data Structures and Algorithms
- Intro to Sys Admin Linux/UNIX

#### BIOLOGY:

- Heredity
- Prehistoric Life
- College Biology 1&2
- Genetics
- Vertebrate Zoology
- Molecular Biology
- Principles of Chemistry 1&2
- Microbiology
- General Ecology
- Cell Biology
- Principles of Evolution
- Mycology

**Associate of Science** – *Utah Valley University, Orem, UT, April 2015*

MAJOR: **UNIVERSITY STUDIES**

## SKILLS

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- Bilingual:
  - English
  - Spanish
- Problem Solving
- Pipetting
- Microscopy
- DNA Extraction
- Introductory Phylogenetics
- Experienced in Microsoft Office, including Word, Excel, and PowerPoint
- Experienced with Google Drive, including Docs, Sheets, and Slides
- Animal Handling
- Trained in coding processes including R for Statistics, Python, and Command Line Interface
- Assembling and Assessing Genomes

## RESEARCH EXPERIENCE

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### **“*Bacillus cereus* tolerance to hand soaps”**

Utah Valley University, Orem, UT

Supervising Mentor: Lauren Brooks, PhD

JANUARY 2023 – MAY 2023

- Selection of bacteria and biocides
- Zone of Inhibition testing
- Data comparison in R

### **“Assembly of highly heterochromatic cactophilic *Drosophila* genomes”**

Utah Valley University, Orem, UT

Supervising Mentor: Carl E. Hjelman, PhD

JUNE 2022 – PRESENT

- *Drosophila* genome assembly using Flye and Canu assembly programs
- BUSCO assessment of assemblies
- Comparison of statistics in R

### **“Potential relationship between sex chromosome size and lifespan”**

Utah Valley University, Orem, UT

Supervising Mentor: Carl E. Hjelman, PhD

NOVEMBER 2021 – JUNE 2022

- Data mining for genome size data for several species
- Data mining for lifespan data for several species
- Performing comparative analyses in R

### **“Aquatic fungal population of Utah Lake”**

Utah Valley University; Orem, UT

Supervising Mentor: Geoffrey L. Zahn, PhD

AUGUST 2021 – DECEMBER 2021

- Assisted with sample collection
- Assisted with extraction of DNA
- Assisted with pipetting in preparation for PCR

## PUBLICATIONS

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- Wainwright, B. J., Leon, J., Vilela, E., Hickman, K. J. E., Caldwell, J., Aimone, B., Bischoff, P., **Ohran, M.**, Morelli, M. W., Arlyza, I. S., Marwayana, O. N., & Zahn, G. (2024). Wallace's line structures seagrass microbiota and is a potential barrier to the dispersal of marine bacteria. *Environmental Microbiome*, 19(1), 23. <https://doi.org/10.1186/s40793-024-00568-3>

## ORAL PRESENTATIONS: \*Presenting Authors

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### 2023

- Sifting through the mess of heterochromatin: An attempt at assembling heterochromatic *Drosophila* genomes. **\*Ohran M**, Hjelman CE
  - Utah Valley University Showcase; Utah Valley University, Orem, UT
- Sifting through the mess of heterochromatin: An attempt at assembling heterochromatic *Drosophila* genomes. **Ohran M**, **\*Hjelman CE**
  - Entomological Society of America 2023 Pacific Branch Meeting; Seattle, WA

## POSTER PRESENTATIONS: \*Presenting Authors

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### 2023

- Comparing highly heterochromatic cactophilic *Drosophila* genome assemblies. **\*Ohran M**, Hjelman CE
  - Utah Conference on Undergraduate Research (UCUR) 2023; University of Utah, Salt Lake City, UT
- Assembly of highly heterochromatic cactophilic *Drosophila* genomes. **\*Ohran M**, Hjelman CE
  - Utah Valley University Darwin Day; Utah Valley University, Orem, UT

### 2022

- Assembly of highly heterochromatic cactophilic *Drosophila* genomes. **\*Ohran M**, Hjelman CE
  - Entomological Society of America 2022 Joint Annual Meeting; Vancouver, BC, Canada (2nd place)
- Fishing for Fungi in Utah Lake. **\*Ohran M**, West B, De La Vega PJ, Simmons R, **\*Tidwell A**, Zahn GL
  - Utah Valley University Showcase; Utah Valley University, Orem, UT
- Effects of Aquatic Fungi in Utah Lake. **\*Ohran M**, West B, De La Vega PJ, **\*Simmons R**, Tidwell A, Zahn GL
  - Utah Conference on Undergraduate Research (UCUR) 2022; St. George, UT

### 2021

- Fishing for Fungi in Utah Lake. **\*Ohran M**, West B, De La Vega PJ, **\*Simmons R**, **\*Tidwell A**, Zahn GL
  - Utah Valley University Undergraduate Poster Session; Utah Valley University, Orem, UT
- Primate Tail Evolution. Bowen L, Dodge R, **\*Navratil M**, **\*Ohran M**, Rowberry R
  - Utah Valley University Undergraduate Poster Session; Utah Valley University, Orem, UT

## COMMUNITY OUTREACH

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- Feb 2023 Darwin Day, UVU Evolution & Bioinformatics Club
- March 2022 “SHEroes in STEM” Thanksgiving Point Event
- Feb 2022 Darwin Day, UVU Evolution & Bioinformatics Club
- March 2024 Central Utah STEM Fair
- June 2024 “Nature Cat Adventure” Girl Scouts and PBS Kids Event

## MEMBERSHIPS

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- UVU Evolution & Bioinformatics Club (Club Secretary Fall 2022)
- Entomological Society of America
- Pacific Branch of ESA

## AWARDS

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- 2022 Entomological Society of America 2nd place undergraduate student competition poster

## EMPLOYMENT

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### **Thanksgiving Point, Lehi, UT – Curiosity Guide**

DECEMBER 2023 – PRESENT

I educate patrons about the natural world and encourage them to implement curiosity in their day to day interactions.

- Run early childhood programs that implement reading, art, and music
- Give presentations and teach classes at schools and outreach centers
- Use inquiry to find answers to questions asked by patrons
- Answer questions about the venues

### **Christa McAuliffe Space Center, Pleasant Grove, UT – Supervisor**

NOVEMBER 2015 – PRESENT

I help run immersive spaceship simulators, telling stories set in a fictional universe where our patrons become the ship’s crew and heroes of the story.

- Assist with the spaceship simulations
- Greet patrons as they arrive
- Respond to calls and emails, answering questions from patrons
- Organize and train volunteer actors
- Operate and troubleshoot audio/video equipment

- Effectively use Google Docs and Google Sheets
- Maintain a clean and safe learning environment
- Ensure that patrons have the best experience possible

**Evermore Park, Pleasant Grove, UT – *Animal Life Attendant***

JUNE 2020 – OCTOBER 2023

I educated patrons about a variety of animals, handling and presenting the animals during wildlife programs, as well as answering questions about them outside of the shows.

- Clean cages
- Safely handle the animals
- Present animals in shows
- Answer questions and share interesting facts outside of shows