Haley Martens

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EDUCATION

University of Michigan, Ann Arbor
BS in Ecology, Evolution, and Biodiversity, December 2021
Graduated with honors and high distinction; GPA: 3.97

WORK EXPERIENCE

2022 - 2023 **Research Technician – University of Michigan Museum of Zoology**
- *Operation of micro-CT scanner for skeletal and diceCT scans*
- *Segmentation and 3D rendering of CT data*
- *Management of scanning queue, staining and packing specimens for diceCT*
- *Assistance with various curatorial duties*
- *Training and mentoring undergraduates*

2022/2023 **Avian Field Intern/Technician – HJ Andrews Experimental Forest,** Oregon
- *Experience mist netting and banding passerines*
- *Point counts and identification of local birds by sight and sound*
- *Data entry of banding, point count, and behavior data*
- *Training new interns and undergraduates*
- *Planning and coordination of field logistics*

2022/2023 **Avian Research Technician – University of Michigan**
- *Mist netting of migratory passerines*
- *Bird care and measurements of target species*
- *Assistance with lab work and behavior trials*

2019 **Counselor – Camp Manito-Wish YMCA,** Wisconsin
- *Leadership experience in a remote wilderness setting*

2017-2019 **Assistant – Happy Apple Pie Shop**
- *Experience in food service and working with people with disabilities*

RESEARCH EXPERIENCE

2021 **Honors Thesis – University of Michigan**
Comparing anti-predator behavior in coral snakes and their mimics
- Scored videos for ethogram data, analyzed data using R
- Manuscript in preparation for publication

2022 **Collaboration with Madison Sutton – HJ Andrews Experimental Forest**
Analysis of avian social networks along elevational gradients
- Created a protocol and collected additional observational data in collaboration with an ongoing study of dominance hierarchies along elevational gradients

2021 **Independent Research – University of Michigan Biological Station**

Comparing lichen density on the ground and on trees in forests at different stages of succession

- Fieldwork included identifying species and measuring trees and lichen densities, analyzed images using ImageJ

2020 **Independent Research – University of Michigan**

Mapping ant species distributions in the E.S. George Reserve

- Converted data to easily accessible form
- Collaborated with professors in discussing current research in ecology

2018 **Independent Research**

Effect of Ibuprofen on Tail Regeneration in Axolotls

- Designed research project, collected and analyzed data on live axolotls
- Presented report and poster at multiple science competitions and conferences
- Awarded Illinois Regional BioGENEius Champion and international finalist

TECHNIQUES & SKILLS

Lab Techniques

- **Preparation and packing of snake specimens for CT scanning (2022-2023)**
- **Iodine staining of specimens and organization of queue for diceCT scanning (2022-2023)**
- **Identification and measurement of specimens (2022-2023)**
- Slicing of bird brains using a cryostat, mounting slices, and antigen retrieval staining (Fall 2022)
- Handling and data collection of live animals (Fall 2017)
- Dissection of various animals and organs

Computer Skills

- **Use of micro-CT scanner for acquisition of both skeletal and diceCT scans of various museum specimens (2022-2023)**
- **Segmentation of skeletal CT and diceCT data using Volume Graphics (2022-2023)**
- **Rendering of CT data for 3D printing and creating figures (2023)**
- Data analysis using R (2020-2023)
- Collecting ethogram data from behavior videos (Fall 2020-2021)
- Use of ImageJ software to measure densities (Summer 2021)
- Evaluation and analysis of camera trap data (Spring 2021)
- Proficient in use of Microsoft Word, Excel, and PowerPoint

Field Techniques

- Mist netting and banding of passerines (Summer - Fall 2022)
- Independent navigation on and off trail in remote forests using a GPS (Summer 2022)
- Experience working in challenging environments and driving on rough terrain (Summer 2022)
- Point counts and identification of birds by sight and sound (Summer 2022)
- Care of and work with birds in captivity (Fall 2022)
- Plant identification and measurements along transects (Summer 2021)
- Soil samples and temperature measurements (Summer 2021)

OUTREACH AND MENTORING

- Training of new employees and undergraduates
  - Maintenance of CT scanning queue at the University of Michigan Museum of Zoology
  - Bird identification and field procedures for H.J. Andrews Experimental Forest bird crew
- Teacher's assistant for the University of Michigan herpetology course
  - Planned and assisted with student projects for a public outreach event
  - Prepared museum specimens for lab class
  - Answered student questions and assisted with course logistics
- Mentoring of undergraduate researchers on their independent research project
- Public outreach at Michigan State Bird Observatory Banding Station

WORKSHOPS AND CERTIFICATIONS

- Valid Michigan Driver's License
- Graphical Representations Workshop (Fall 2021)
  - Lead by Alison Davis Rabosky
- Wilderness First Aid Certification (2019)
- CPR Certification (2019)

HONORS/AWARDS

2021 **James P. Angell Scholar**, University of Michigan

2018 **BioGENEius**, Illinois Regional Competition

References

Hayley Crowell – PhD Candidate

Department of Ecology and Evolutionary Biology, Museum of Zoology
University of Michigan, Ann Arbor
hlcrowel@umich.edu | 301-693-3414

Madison Sutton – PhD Candidate

Marquette University, Milwaukee, WI
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Eric Gulson – PhD Candidate

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