

Raven Edwards

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Professional Profile

- Graduate research scientist with experience in field biology, climate change research, biological mutualism research, and animal husbandry
- Proficient in Microsoft Office Suite

Education

University of Alabama at Birmingham

Birmingham, AL

Master of Science in Biology

01/2019-Present

- Graduate teaching assistant

University of Alabama at Birmingham

Birmingham, AL

Bachelor of Science in Biology

08/2015-12/2018

Minor in Chemistry

- Graduated *summa cum laude*
- The James McClintock Endowed Undergraduate Student Scholarship in Polar and Marine Biology inaugural recipient
- Undergraduate Outstanding Student Award Runner-Up in the Department of Biology
- The Dr. Ken R. Marion Ecology/Environmental Science Career Award in Biology Scholarship recipient
- The Gladys Davies and George F. Brockman IV Endowed Scholarship recipient
- Freshman Biology Scholarship recipient
- UAB Presidential Scholarship recipient
- UAB Honors College member
- UAB Science and Technology Honors Program member

Research Experience

UAB Campbell Hall

Birmingham, AL

Researcher in the lab of Dr. James B. McClintock

01/2017-Present

- Collected, recorded, and analyzed data
- Conducted directed literature searches in research databases
- Animal husbandry
- Maintenance of saltwater aquaria
- Wrote and edited an undergraduate thesis proposal
- Microscopy
- Gastropod identification and categorization based on visible physical characteristics
- Research on the gastropod abundance and number of species found on select macroalgae found in the Western Antarctic Peninsula
- Compiled data into research poster

Birmingham Zoo

Birmingham, AL

Research in Association with Dr. Stephanie Slade, Vice President of Living Collections

01/2018-Present

- Research on the solitary behaviors, social behaviors, and interactions of the male African elephants making up bachelor herd
- Ethograms
- Wrote and edited a research proposal
- Compiled data into research poster

UAB Ryals Building

Birmingham, AL

Course-Directed Undergraduate Researcher for Dr. Erika L. Austin

01/2018-04/2018

- Research on the prevalence and trends relating to hunger on the UAB campus
- Performed Team-Based Learning
- Created and distributed a survey
- Analyzed data using JMP software
- Compiled preliminary data into research poster

UAB Kaul Genetics Building

Birmingham, AL

Course-Directed Undergraduate Researcher in the lab of Dr. Anil Challa

01/2016-04/2016

- Collected, recorded, and analyzed data
- Conducted directed literature searches in research databases
- Conducted directed genetic sequence searches in ECR Browser
- Reagent preparation, DNA isolation, and PCR analysis
- CRISPR-Cas9 preparation and implementation
- Compiled data into research poster
- Contributed to research on the disruption of potential enhancer regions in *Danio rerio* tyrosinase gene using the CRISPR-Cas9 system

Teaching Experience**University of Alabama at Birmingham**

Birmingham, AL

Graduate Teaching Assistant for Topics in Contemporary Biology

01/2019-Present

- Semester laboratory project centering on disease transmission in species of Alabama ticks
- Taught utilizing the Team-Based Learning (TBL) teaching style

Volunteer Experience

McWane Science Center

Birmingham, AL

Building with Biology Volunteer

08/2016-09/2016

- Assisted in planning and execution of Building with Biology event
- Worked an interaction station where visitors learned about the presence of genetically modified food components in their everyday life

McWane Science Center

Birmingham, AL

Body Worlds Volunteer

03/2016-04/2016

- Answered questions posed by exhibit visitors and directed them through the event hall
- Worked an interaction station where visitors could touch preserved organs

Presentations

Edwards, R., Miller, L., Amsler, M., Amsler, C., Angus, R., McClintock, J. (2018, December 13th). *Densities of mesogastropods associated with two common species of macroalgae along the coast of the western Antarctic Peninsula*. PowerPoint presented at Science and Technology Honor Program Thesis Approval Presentation in Heritage Hall Building 535, Birmingham, AL.

Edwards, R., Miller, L., Amsler, M., Amsler, C., McClintock, J., Angus, R. (2018, April 13th). *The diversity and abundance of gastropods associated with select macroalgae found off the coast of the Western Antarctic Peninsula*. Poster session presented at the UAB Spring Undergraduate Research Expo, Birmingham AL.

Edwards, R., Casper, M., Higginbotham, K., Lukens, S., Williamson, K., Ordenes, M., Austin, E. (2018, April 13th). *The Impacts of Food Insecurity on the University of Alabama in Birmingham Student Minority Population*. Poster session presented at the UAB Spring Undergraduate Research Expo, Birmingham AL.

Edwards, R., Miller, L., Amsler, M., Amsler, C., McClintock, J. (2017, November 27th). *The diversity and abundance of gastropods associated with select macroalgae found off the coast of the Western Antarctic Peninsula*. PowerPoint presented at Science and Technology Honor Program Thesis Proposal Approval Presentation in Heritage Hall Building 524, Birmingham, AL.

Wallace, T., Long, A., Lambertsen, P., **Edwards, R.**, McClintock, J. (2017, November 30th). *Will Sea Stars Tolerate Rising Levels of Ocean Acidification Predicted in the Near Future?* Poster session presented at the UAB Fall Undergraduate Research Expo, Birmingham, AL.

Edwards, R., Doussan, A., Cash, A., Rock, R., Kwon, Y., Wade, A., Cooper, L. (2016, November 30th). *Synthetic Biology Program Indicates Opportunity to Promote STEM in Middle School and High School Students*. *McWane Science Center: Building with Biology*. Poster session presented at the UAB Fall Undergraduate Research Expo, Birmingham, AL.

Edwards, R., Rock, R., Tian, T., Challa, A. (2016, April 15th). *Analysis of a potential intronic enhancer in the zebrafish tyrosinase gene using the CRISPR-Cas9 technology*. Poster session presented at the UAB Spring Undergraduate Research Expo, Birmingham, AL.

Edwards R., Madsen, D., Cash, A., Gillian, D., Sweatt, J.D. (2015, December 4th). *Knockout of H2A.Z Improves Long-Term Memory*. Poster session presented at a Science and Technology Poster Session, Heritage Hall Building Lobby, Birmingham, AL.

Organization Memberships

UAB

- Science and Technology Research Liaison Fall 2017
This position requires selecting a research paper previously published by a graduate student from my current research lab and helping the group of SciTech freshmen tasked with crafting a poster for said paper in understanding and correctly representing the topic. The group that I acted for a liaison for Fall 2017 tied for first place in the UAB Fall Undergraduate Research Expo in the Works in Progress section.
- Honors College Peer Mentor Program 2016-2018
I have mentored a total of seven Honors College freshman as now. This duty includes providing basic help with choosing courses to take as well as setting up four-year plans and determining what extracurriculars to pursue, including potentially joining a research lab on campus.

National

- Phi Sigma Spring 2018-Present
- National Society of Collegiate Scholars Fall 2017-Present
- Sigma Alpha Lambda Honors Society Fall 2016-Present
- Golden Key International Honors Society Fall 2016-Present

Academic Honors

- Science and Technology Honors Program 01/2018
 Researcher of the Month
- UAB Presidential Honors List (4.0 GPA) 12/2018
05/2018
12/2017
05/2017
12/2016
05/2016
12/2015
- QEP: Learning in a Team Environment 12/2017
 QEP & ME Essay Contest – 3rd Place
- UAB Fall Undergraduate Research Expo 11/2016
 Honorable Mention – Education Division