

Lindsay MacMillan

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EDUCATION

Auburn University Auburn, AL

Bachelor of Science in Organismal Biology- Ecology, Evolution and Behavior – December 2016

GPA: 3.32/4.0

RESEARCH/ACADEMIC INVOLVEMENT

Science Under Sail Expedition – Dr. Robin T. Smith (founder and CEO)

August 2016

Non-profit organization based in Sarasota, Florida

- Explored the Bahamian islands between Georgetown and Eleuthera with a team of 8 girls 3 mentors
- Fundraised \$2000+ over the course of a year which then was matched by Ocean Optics, my corporate sponsor, to reach the total tuition cost of \$4700
- Collected specimens of *Orbicella faveolata* for research to aid in a project on potential coral reef nitrification in Elizabeth Harbor, Georgetown, Bahamas
- Learned to sail a 47-ft catamaran as part of an eleven-person crew
- Helped take underwater photos using a GoPro to be incorporated into a photomosaic model for long-term site monitoring of coral reefs

Undergraduate Research Internship – Dr. Bill Walton (supervisor)

May-July 2016

Department of Fisheries, Auburn University

Funded by a USFWS Grant collaborated by Auburn University, Oakwood University, and the USGS

- Providing field and laboratory work to study effects of two different oil treatments on egg masses of invasive apple snails (*Pomacea maculata*) to determine an efficient management technique for the population at Langan Park in Mobile County, Alabama
- Leading an individual side project on egg mass characteristics including total egg number to determine a simple method for estimating future population sizes, especially in environments where assessing egg masses is difficult

Undergraduate Research Assistant – Lab of Dr. Henry Fadamiro (supervisor: Tolulope Morawo)

August 2015-May 2016

Department of Entomology and Plant Pathology, Auburn University

- On a daily basis and at approximately 14 hours/week- responsible for maintenance of the moth colony (*Heliothis virescens*) used to rear the parasitic wasp (*Microplitis croceipes*), studied by the graduate students in the lab
- Transferring moth eggs, pupae, and caterpillars into their appropriate containers with diet during the pupae and caterpillar stages, or into plastic boxes with clothe hot-glued to the top during the reproductive stage
- Cleaning dishes and preparing a nutritive pinto bean-wheat diet for the newly hatched larvae to feed on until pupation

Undergraduate Research Assistant – Lab of Dr. Henry Fadamiro (supervisor: Joe Disi)

August 2015- February 2016

Department of Entomology and Plant Pathology, Auburn University

- For approximately 5 hours/week- performed bacterial screening on corn roots that had been infested by western corn root worms (*Diabrotica vigifera*) to determine effects of different bacterial strains on the pest worm
- Planted corn seeds at the start of each week to be used in analyses
- Immersed corn roots and worms in a prepared bacterial solution before placing them into petri dishes to make eight replicates of 10 strains of bacteria, plus control
- Assessed whether the worms were healthy (H), dead (D) or diseased (Dis) after 48- and 72- hour intervals

Undergraduate Research Assistant - Lab of Dr. Geoffrey Hill (supervisor: Molly Staley)

August 2014-May 2015

Department of Biological Sciences, Auburn University

- Assisted with research on the mechanisms of disease resistance of house finches (*Haemorrhous mexicanus*) to *Mycoplasma gallisepticum*, which causes respiratory disease and conjunctivitis in infected house finches
- Administered oral medications (in water and via syringe) against common protozoal pathogens of house finches
- Learned how to safely handle small passerines
- Followed strict protocols for working with and caring for control and experimentally infected house finches
- Monitored house finches for signs of disease or injury during quarantine as well as disease symptoms and severity following experimental infection with *M. gallisepticum*

Undergraduate Research- Lab of Dr. Conor McGowan (supervisor: Jennifer Price)**September 2014**

School of Forestry and Wildlife Sciences, Auburn University

- Surveyed for scat samples in Lounes County to help determine coyote density in Alabama
- Collected scat samples and made detailed records on moisture, age, location, and probable species of the scat
- Managed a four-wheel drive vehicle, using a hand-held GPS and a map to navigate the unmarked areas.

Bat Blitz-Wildlife Society of Auburn University**August 2014**

School of Forestry and Wildlife Sciences, Auburn University

- Learned how to mist net and identify bat species including the Little Brown Bat (*Myotis lucifugus*), Indiana Bat (*Myotis sodalis*), and Gray Bat (*Myotis grisescens*) using a dichotomous key
- Located bats using acoustic surveying methods which were mounted on the top of vehicles as we drove
- Followed strict decontamination protocols for working with *Geomyces destructans*, the fungal pathogen that causes White-nosed syndrome in bats

VOLUNTEERING WITH ANIMALS**Auburn University Museum of Natural History volunteer (supervisor: Dr. Brian Helms)****October 2014**

- Assisted with the curation and maintenance of bivalve, gastropod and decapod specimens
- Collected reptile tissue samples from AUMNH specimens and prepared them for shipment to another lab

Greater Huntsville Humane Society**July 2014**

Huntsville, AL

- Played with cats/kittens and overlooked the Cat Room as small children played with the cats/kittens
- Monitored the small puppy pin while it was raining and as possible rescuers visited with puppies

Raptor Rehabilitation Center**October 2013/January 2014**

Auburn University

- Carefully handled injured raptors such as Cooper's Hawks (*Accipiter cooperii*) and Screech Owls (*Megascops asio*).
- Performed husbandry for raptors housed in outdoor aviaries as well as sick and injured raptors inside the rehabilitation clinic for a few weeks during each month

Pennington Animal Hospital**December 2013**

Huntsville, AL

- Maintained a clean and safe environment by assisting with cleaning laundry items and mopping floors
- Walked the dogs twice a day on the weekends
- Shadowed two veterinarians and learned what it's like working in an animal clinic

ASSOCIATIONS

- Worked in Dr. Nanette Chadwick's Marine Lab performing tank care January- February 2016
- Volunteered as an event supervisor for Science Olympiad at Auburn University April 2016
 - Proctored and helped grade the "Write It – Build It" activity with Dr. Robert Lishak
- Marine Biology club's DISL Boat Trip with Dr. Anthony Moss March 2016
 - Collected and identified marine specimens, and recorded coordinates of sampling locations
- Certified to drive a 10-passenger van and other university vehicles August 2015
- Treasurer of the Marine Biology Club for Auburn University August – May 2016
- Marine Biology Club's Boat Trip at Dauphin Island with Dr. Anthony Moss and Dr. Robert Boyd March 2015
 - Collected and identified marine specimens, recorded coordinates of sampling locations
- Leader of the Gamma Beta Phi Honor Society interest group on Environment, Ecology and Animals January - March 2015
- Intramural basketball team through Auburn University January – March 2015
- National Society of Leadership and Success August-December 2014
 - Member of the Social Events committee
- Gamma Beta Phi Honor Society January- May 2014
- Conservation Biology club at Auburn University January- May 2014
- Intramural Softball team thru Auburn University January-March 2013
- SCUBA certified through Auburn University May 2013
- Swam with Manatees with the Marine Biology Club February 2013
- National Youth Leadership Forum in Washington, DC February 2011
- Camp counsellor at Camp Winnataska in Pell City, AL June 2010/2011
- Mission trip with World Changers in Alaska February 2007