

The Fantastic Four Interns

This summer we, the Fantastic Four (Madeleine Thompson, Sam Holmes, Grant Aden, and Bennett Lamczyk), interned with the Institute for Conservation Medicine (ICM) at the Saint Louis Zoo's North Campus. With face masks on and socially distancing the norm, we assisted the ICM team with two projects—aquatic turtle abundance and health and the wild canid camera trapping. We also each had our own independent project, helping to update and rewrite the ICM website and researching pesticide and heavy metal bioaccumulation in turtles. Although COVID changed many things this summer, we were able to experience a summer internships with the Saint Louis Zoo. Here we share our stories!

Hi! My name is Madeleine Thompson, and I am a rising Senior at Saint Louis University studying Biology with a concentration in Ecology, Evolution, and Conservation. As someone who is pursuing a career in the conservation field, my internship with the ICM has been truly amazing! Whether it was getting to track box turtles in Forest Park or doing health assessments on the aquatic turtles at the North Campus, each day offered new and exciting opportunities to strengthen my passion for conservation and further develop my research skills. My favorite part was getting to work hands-on with the aquatic turtles ... even though they peed on me on multiple occasions. This internship was important because having the skills/mindset to work in close contact with wildlife is crucial in my chosen career field. Furthermore, a deep connection and appreciation for wildlife formed when working up close with these amazing creatures. Beyond fieldwork, I am grateful for the exposure to lab work which has provided me a holistic view of research. Overall, my experience wouldn't be as great if it weren't for the amazing ICM team and fellow interns. There are no other people that I would have wanted to plunge into murky ponds with than this incredible posse. They not only made every day fun, but each of them offered unique perspectives that truly embodied the One Health concept championed by the ICM and which I will carry with me in my future studies. So thank you to everyone and every turtle who made this experience one I will cherish forever!

Hi! My name is Sam Holmes and I am a rising Junior at Williams College in Williamstown Massachusetts, majoring in Environmental Studies with a concentration in Public Health. Interning for the ICM this summer has been an incredible experience for me! I have had so much fun and learned a lot about field research and turtles. This internship has been my first full experience with field research and I don't think I could have chosen a better place to do it! Getting to jump right in (literally into the ponds sometimes), I have learned first hand how to multitask while in the field, keep a site organized, and how to handle a turtle. Inside the laboratory, I have learned so much about the chemistry of blood and infectious diseases and have been able to hone lab skills I had previously learned in college classes. My favorite part of this summer was being able to explore the North Campus area and walk through the woods to new ponds then jump in (with waders) and walk throughout the ponds to gauge the water level.



Hey! My name is Grant Aden and I am a rising Senior at the University of Tulsa, majoring in Biology on the Pre-Medical track. I am so thankful for having had the chance to work with such an amazing, diverse team that is the ICM. Not only did this internship provide me with valuable experience conducting hands-on, health-based field research, but it also allowed me to explore my passion for conservation and One Health Medicine. I hope to be a physician who advocates for One Health Medicine and the balance between human, animal, and environmental health. I aspire to support at-risk, underserved communities: treating their health, empowering them with preventative protection plans against zoonotic diseases, and educating them on the importance of environmental conservation. Professional goals aside, whether I was conducting laboratory tests on blood chemistry, performing health examinations, or even sinking my waders, my experiences as an ICM intern have undoubtedly expanded my comfort zone both scientifically and personally. In turn, the next time I face a murky, mysterious, algae-covered pond, I most certainly will not hesitate to wade right in.

Hello everyone! My name is Bennett Lamczyk and I am a veterinary student in my last year of school at the University of Illinois. This is actually my third summer I have worked with the ICM as I previously assisted with two other projects before starting veterinary school. This summer brought whole new challenges, some of them not COVID-19 related! As a veterinary student I was able to practice my physical exam skills and diagnostic testing on the wild aquatic turtles of Missouri. I was also able to finish writing a manuscript with the ICM that will be published in a scholarly journal, which if accepted will be my very first publication! Being able to complete veterinary internships in school, especially now when many of my other educational opportunities have been cancelled due to the pandemic, is important so that I can graduate as a competent, professional, and knowledgeable veterinarian. I am so happy that I and my fellow interns were able to complete this internship safely. Thank you all and remember to save the turtles!



A DAY IN THE LIFE OF AN ICM INTERN AT THE STL ZOO NORTH CAMPUS SUMMER 2020

1

Day Begins

8:00 a.m.

Interns arrive at the Saint Louis Zoo's North Campus administrative building. We pack the supplies we will need for the day into the back of our golf cart, grab our waters, and prepare to head out to the pond.

2

Waders-Up and Collect the Turtles

8:30 a.m.

When we arrive at the pond for the day, we set up our tent over the golf cart, so that the turtles can sit in the shade once we get them out of the water. Next, we put on our waders and go net-by-net, taking the net out of the water and brining them to the shade (with the turtles in them) and laying them in the shade.

3

Sampling the Turtles

8:45 am - 10:30 am

Once the turtles are in the shade, we go one-by-one, picking each up and checking to see if it has been previously notched (which is a triangular indent into the outside of the shell used to identify if the turtle has been caught before). If the turtle has been notched, we weight and physically examine it then release. If the turtle has not been notched, we hold it for the ICM vet/tech to bleed and take mouth and cloaca swabs. Then we take its measurements, weight, and perform a physical health exam before notching. We take pictures of each new turtle before releasing it.

4

Resetting the Nets

10:45 am - 11:15 am

Once we finish sampling the turtles, we reset the nets for the next day. We sample each pond for 3 days and after the 3 days we clean the tools before resetting in a different pond. To reset the nets, we chop up fish, place them in the nets, and put the nets back out onto stakes we have placed around the pond.

5

Lab Work

11:30 am - 2:30 pm

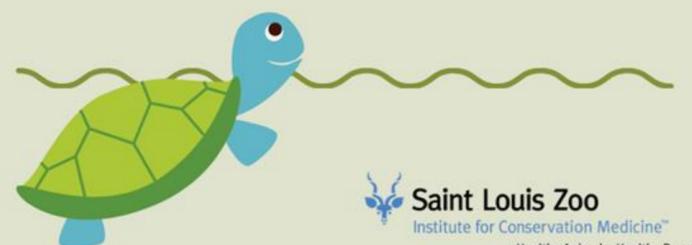
For most of the afternoon, the interns work in the lab, preparing the blood samples and swabs for storage and running various testing. We determine the hematology for each turtle's blood and prepare the blood for chemistry (electrolyte, protein, and enzyme measurements) to be performed at a local veterinary lab.

6

Independent Work and Miscellaneous Helping

3:00 pm - 5:00 pm

For the remainder of the day, we work on our independent projects: updating the ICM website, researching chemical and heavy metal bioaccumulation in turtles, and researching possible grants. We have also helped set and check cameras for the wild canid camera trapping project.



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