HEADLINE — STUDENTS HANDLING COVID-19: IN THEIR OWN WORDS

**Kandace Griffin, Michigan State University**

Fisheries and Wildlife Ph.D. student

Applied Behavioral Ecology Lab

CUTLINE 1 [Griffin 1] — Kandace Griffin kayaks on a body of water. She works in the Applied Behavioral Ecology Laboratory at Michigan State University. Image credit: Kandace Griffin.

CUTLINE 2 [Griffin 2] — Griffin and another student rest on a riverbank after conducting their research. Image credit: Kandace Griffin.

Kandace Griffin is a doctoral student at Michigan State University. She was planning to track invasive sea lamprey with acoustic telemetry, or sound equipment, during the summer. But the COVID-19 pandemic could keep her from researching during the sea lamprey’s brief May to mid-June spawning period.

On the uncertainty caused by the COVID-19 pandemic:

“The challenges that the COVID-19 pandemic has caused is the uncertainty we have of when we’re going to be able to get in the field. The sea lamprey migration is very seasonal. We have from May to the middle of June to work in the field, because that’s when they’re migrating.

“We work with several institutions that not only meet at MSU. We also work with the U.S. Fish and Wildlife Service. They’re the ones that operate traps for animals that we would use for research. We also work with the U.S. Geological Survey. Those are the folks I’m working with for my field research, because they’re experts in telemetry equipment.”

On what she researches:

“My research is on the movement ecology of the invasive sea lamprey. We’re looking to supplement control efforts in the Great Lakes. Currently we rely on a pesticide application to control the larvae, and that application is not always feasible. … We’re trying to devise some alternative control techniques to use in areas where the pesticide is not a feasible option. We also use some of our research to help with management. In other parts of the world, sea lamprey are actually imperiled, and so we’re trying to find out how sea lamprey make their movement decisions and spawning.”

How her research has been disrupted:

“MSU says we can’t get out in the field or Fish and Wildlife Services says that their employees are continuing to telework. We have expertise in a lot of different areas, but we’re vulnerable to halting the projects in a lot of places, too.

“A big capital issue is that the acoustic telemetry equipment I would be using is very expensive. What we do is we put these receivers in the water, and then I put a tag in the animal. The receivers we have are on loan, so we are able to use those just fine. But the tags are only good for a couple months after the company builds them. That’s tens of thousands of dollars I was planning to use this year. We can’t make the mistake of buying them this year and then not being able to get them in the water. The batteries would deplete.”

On Michigan State moving to virtual instruction:

“My supervisor is very keen on me learning on how to do every aspect of the project. He’s disappointed, too. Back in March, when we first got told to telework, he was very much saying ‘We need to think about what it would look like if we can’t get in the field this season.

“At first, the transition to online was an obstacle, but they’ve really worked on presenting the material, still getting it to us and letting us engage with our cohorts. Navigating this virtual learning classroom was interesting.

“At the beginning, there were gaps in communication, particularly with the graduate students. At first, we didn’t know if we were students or faculty, particularly when they said ‘Go back to your permanent residence.’ We were like, ‘Wait a minute, are we still required to come on campus? Are we now employees? Where do we fall?’ When updates were coming down, sometimes we were being missed. We did bring that up to our leadership. Now I sometimes get the same email two or three times, but I’d rather get it two times than no times.”

How she plans to move forward:

“We’ve been thinking about alternatives that we can do. For me and my degree path, it might not be a huge issue. The lab that I’m in now with Dr. Wagner – we have a dataset from a previous student and postdoc that needs to be analyzed and would contribute substantially to my project. It’s using the same type of equipment that I would be using in the field.

“They’ve already collected the data. It would help me to go through and analyze it. There’s a chance of publication, and it could add a significant chapter to my dissertation. So I do have an alternative if this field season is lost.

“For my degree program, losing this field season might not be the worst, but it is still disappointing that I might not be able to get into the field this summer like I was planning.”

**Ellie Weise, Michigan State University**

Fisheries and Wildlife master’s student

CUTLINE — [Weise 1] Ellie Weise collects sea lamprey to be used in laboratory testing. Image credit: Ellie Weise.

CUTLINE — [Weise 2] One of the young sea lamprey Weise will conduct research on. Image credit: Ellie Weise.

Ellie Weise’s research involves collecting young sea lamprey and analyzing their DNA sequences to construct a “print” of the sea lamprey’s parents. But the COVID-19 pandemic has shuttered the MSU lab she conducts tests in.

On the uncertainty caused by the COVID-19 pandemic:

“Stress-wise, I’ve been up and down. It’s a lot, and I want to help in any way that I can. We’ve been making tea. It’s hard just being stuck at home. I go from where I’m at right now, feeling pretty zen — I’m like, ‘I can get through this!’ — but every once in a while, I freak out about what’s going on.

“I’m actually the only grad student with my advisor. We’ve maintained our weekly meetings. He’s been really good about helping me talk through my own anxieties and he’s been understanding. His mentality is definitely ‘Hey, make sure you’re thinking about the things you can control.’ Our funding source isn’t clear, but he made it very clear that he’s going to help us figure it out and I’m going to be okay. It was good to have that reassurance right now.”

How it has disrupted her research:

“My specimens and my field work was completed last summer. But the big thing that’s delaying my work right now is the sequencing facility at MSU is closed. I have some sequences that need to go through there, so I’m waiting on that.

“My old lab work is considered non-essential, so I’m not going into the lab until [Michigan’s] stay at home order is lifted and some of the university business is allowed to go back to normal. I have an early round of data completed that I’m able to work with, so I’m finishing up the publication for that right now. But rounds two and three are delayed until we can get back on campus to do lab work, and I don’t know when that’s going to be.”

How she plans to move forward:

“If we start opening things back up in May, the impacts to my degree program will be relatively minimal. But if we’re not open for another two or three months, my graduation will probably be pushed back another semester and my dissertation from November to February.

“A lot of how big my impact’s going to be is contingent on how long the university stays at partial operations.

“I’m trying to plan for all the possible outcomes. Every time I think about all of the things I can’t control, it’s incredibly overwhelming, because I’m just one grad student. I can only do my own work. I can help my friends, I can help my collaborators and let them know we’re trying our best to do things with this situation. Ultimately, that’s what I can do. Help the people around me.”

On Michigan State moving to virtual instruction:

“My classes are finishing up okay. We made the transition online pretty well. I did move home to my parents’ house. I’m relatively local, about 20 minutes away. I really didn’t want to do quarantine in my apartment in Haslett. My parents have a backyard where I can walk around, at least.

“Working from home took some transitioning, figuring out how to make it work with so many people in the house. I’ve been trying to make decent progress on my research, despite some delays. I have some data on hand that I can work with.”

**Keith Contrera, Ohio State University**

Mechanical engineering senior

Summer 2020 SpaceX intern

CUTLINE [Contrera 1]: Keith Contrera studies mechanical engineering and minors in business at Ohio State University. Image credit: Keith Contrera.

CUTLINE: [Contrera 2]: Contrera will intern for SpaceX in Los Angeles in summer 2020. Image credit: Keith Contrera.

Keith Contrera is part of SpaceX’s summer 2020 class of interns. He’s a senior studying mechanical engineering and business at Ohio State University. He’s set to graduate with a bachelor’s degree in December 2020.

He spoke to how he had a close call with COVID-19 and how he has concerns that the pandemic will affect the economy and his future job searches.

How COVID-19 impacted his life:

“Initially, I was in quarantine because I was exposed to someone who had [COVID-19]. That was a little different. I was in lockdown. Now, outside of quarantine, my schedule’s pretty much the same. I still run and read pretty much every day, and then all my other time is taken up by homework and classes. I still remain pretty busy in school, and I think, to some degree, I’ve almost spent more time with school.”

On looking for jobs during the pandemic:

“The economy, how far we’ll be recovered from the pandemic … it does create some concern for me in terms of the job search. In an ideal world, I’d like to get an offer out of this internship, but at the same time, I don’t know what the hiring process is going to look like. Luckily for me, I am in an industry that’s generally not impacted or seems to be pretty resilient to this whole situation. We’ll see where that goes. I think it could stress things more, but overall, I would like to think that I’ll still be able to find a job. Maybe that’ll require a little but more effort because classes moved online and there’s no career fairs or anything like that. In an ideal world, nothing gets affected, but only time will tell.

“A lot of my friends have been affected. For some people, their job has been moved online. For others, their internships have just been straight-up canceled, which is really unfortunate. I think that puts a little bit more stress on whole situation, just because not having an internship your senior year definitely influences the job search going forward.

How he plans to move forward:

“My plans have been unimpacted, which is nice. I’ll be interning at SpaceX in Los Angeles. My start date is the same. Precautions at work changed a little bit. They’re not doing a big first day. You have to wear PPE [personal protective equipment] and things like that, but other than that, no plans have changed for me for that.

**Barry Cohen**

National Algae Association Executive Director

“We’re a nonprofit algae education and trade association. We set up the nonprofit and said to everybody, ‘If you have a technology that has been proven outside the lab that is scalable and economically feasible, let’s take those technologies and let’s get out on the water and remediate.”

“When I see these young kids getting out of college or graduate school and they’re not getting jobs — especially with the COVID-19 situation, but they have that experience ... there may be ways NAA could work with universities to do testing. We have governors’ offices coming to us looking for solutions. We have counties and lake associations coming to us looking for solutions.”

“I’d love to talk to some students who might have interest in this. We’re assembling different teams to go out to different waterways and I think it could be a great opportunity for the students. We don’t profit by any of this or require anybody to become a member or sponsor. I just think, ‘Here’s a way that students can use their own talents and education and put it to work.”