

Duck-loving PhD graduate seeks to discover the viruses they carry

By Risa Aria Schnebly, ASU News
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Editor's note: This story is part of a series of profiles of notable [spring 2026 graduates](#).

Few people in this world know as much as Diego Olivo about the viruses that live inside a duck. And few people, perhaps, love ducks as much as he does.

"I'm kind of known as the duck guy now," Olivo says, smiling.

Olivo, a PhD graduate of the evolutionary life sciences program, has gone to lengthy measures to study duck viruses: combing through massive databases of viral gene sequences, collecting fresh duck poop in Kiwanis Park, and even coordinating with a national network of duck hunters to send him cloaca swabs.

"We know a lot about human viruses, but we don't really understand or know what kind of viruses exist in these wildlife systems and what the ecological implications are," Olivo says.

Animal viruses can cause a huge variety of disease outcomes, potentially affecting both wildlife and the humans who interact with them. But if people don't understand what viruses exist out in nature, they can't take measures to protect against them or identify why certain disease outcomes are happening.

Throughout his PhD, Olivo has identified 29 viruses that likely infect ducks, as well as 4,464 viruses associated with their microbiome. He mapped their evolutionary relationships with one another and with other known viruses. Because few people have looked extensively into duck viruses before, when Olivo searches for viruses, he has to start from scratch.

"We're not looking for anything specific," he says. "We're kind of seeing what needles we can find in these massive haystacks of viruses, and based on what needles we find, we can try to understand where they fit into these evolutionary relationships and see what the implications of that might be."

Olivo has loved animals since he was a kid growing up in Tucson, where he would catch glimpses of lizards or coyotes running through the desert. But what got Olivo to pursue his research subject was a fascination with viruses. He became enchanted by them as an undergraduate researcher in the [Mihaljevic lab](#) at Northern Arizona University, where he helped study viruses in tiger salamanders.

“It was interesting seeing all these crazy symptoms that the salamanders got, and knowing that people don’t really know or care about it. These animals are so important, so why not focus on some of the viruses that impact these wildlife?”

He wasn’t sure he wanted to pursue academia after finishing his undergraduate degree. He tried working for a year at a company that tested for bacterial pathogens in food products, which proved to be instructive.

“I learned what I really don’t want in a job, which is doing the same thing over and over. I didn’t feel mentally stimulated — I was bored,” he says. “It gave me clarity on what I really wanted for my career. I’m a very curious person, I want to ask different questions, and I want to figure out how to understand if those questions are valid or not.”

So, Olivo looked into where he could continue doing research with animal viruses, and found [Arvind Varsani, who runs a lab at ASU](#) focusing exclusively on that. There, Varsani offered Olivo a variety of exotic animals he could study, ranging from turtles to mountain lions to penguins. Olivo chose ducks.

“I guess I wanted something new and different,” he says, laughing.

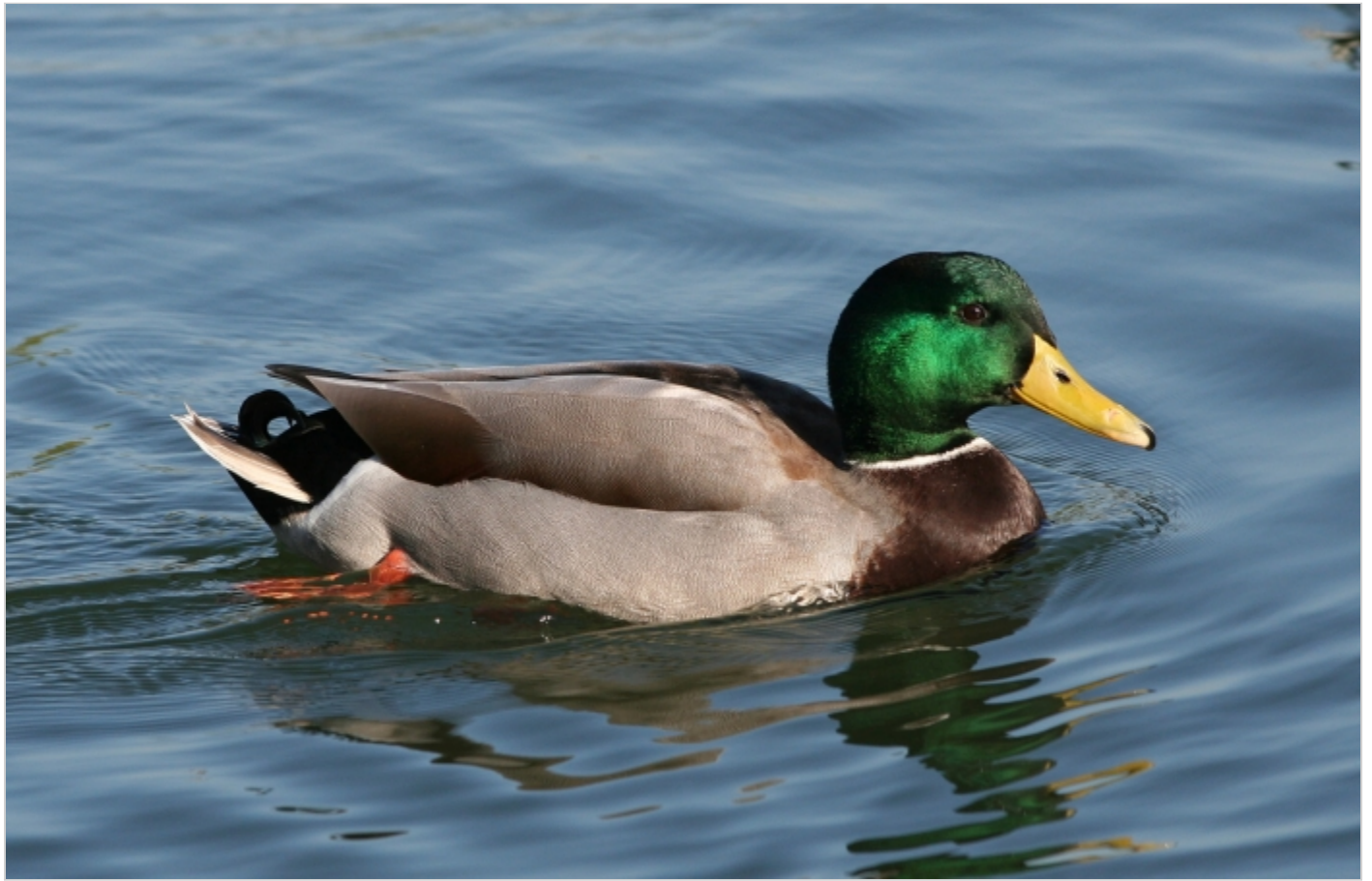
Olivo was awarded the Presidential Graduate Assistantship Fellowship as a first-year, which guaranteed him two years of funding as a teaching assistant and two years as a research assistant. Over the course of the five years of his PhD, he worked tirelessly, completing five dissertation chapter when only three are expected, mentoring undergraduates in the lab, and publishing three of his chapters as academic research articles.

Hoping to continue a career in academic research, Olivo is on the hunt for a post-doctoral position now, hoping to pursue a career in academic research and eventually run his own lab and mentoring students.

“I really like the idea of cultivating confidence in students — we don’t have many people who really prioritize that,” Olivo says. “At the end of the day, science should be fun, and science is for everyone. So I want to be intentional about making science an engaging place where people are okay with failing, but also learning from those failures.”

This story originally appeared on [ASU News](#).

Main image



Diego Olivo studies viruses that affect a variety of ducks, including the common mallard.

Text image(s)



Diego Olivo in his office, holding a rubber duck