

Meet a Scientist Who Studies Variation in Monkey Populations

Scientist Christopher Schmitt bends to measure the tail of a vervet monkey in the hot, dry savanna of South Africa. He stretches the measuring tape as a student holds the monkey gently but firmly. Just then Schmitt feels a strange tugging on his foot. He looks back and sees a large warthog with long, curved tusks trying to eat his shoe!

Schmitt studies variation in monkey populations. He has measured monkey tails, waists, and heights to find out about variation in their sizes. He has collected poop to find out about differences in the digestive systems of monkeys. He found out that some monkeys have more parasites in their guts than others.

Work as a field biologist can be exciting and beautiful. It is thrilling to make new discoveries about wild monkeys—things no one has studied about these populations. Schmitt loves to watch wild animals. One of the best moments came when he saw an animal he had liked reading about as a child. “I was following woolly monkeys around in the Amazon, and almost backed directly into a giant anteater! They’re almost blind, and have enormous claws to break up anthills. For about an hour, I got to sit three feet away from this magical creature that, as a child, I never thought I’d see in my life.” Still, work as a field biologist can also be hard, and even dangerous. Schmitt has dealt with heat, mud, mosquitoes, and illness. He’s been hunted by lions and by a jaguar, struck at by rattlesnakes, and charged at by an elephant.



Christopher Schmitt is a scientist.



Vervet monkeys live on the dry savanna.

Schmitt's research is important in making sense of why animal populations have the traits they do. Understanding variation in populations is key to understanding natural selection, and how traits of a population change over time or in different environments. Schmitt says, "All of my work is influenced by the concept of natural selection." For example, Schmitt has found that vervet monkeys tend to be larger in cooler areas. Larger animals can keep themselves warm more easily.

As well as doing research and writing about his findings, Schmitt teaches science to students at Boston University. He is active in supporting lesbian, gay, bisexual, and transgender students, and he shares with them the challenges and successes he's experienced as a gay man. He says, "I am very happy to say that our academic field—in my experience of it—is exceptionally open to and even celebratory of LGBTQIA folks."

Schmitt sometimes discusses human traits with his students as well. He says, "Making sure my students see and understand the difference between the biology of a trait and how society thinks about a trait is important to me. I've learned that, although biology can tell us a lot about the ways in which humans adapted to their environments, it really can't tell us much about our own identities and how to live them. I've been gay my whole life, and as a biologist have learned a lot of ideas about what might explain that biologically. I've also learned that biology can't inform how proud I am to be gay, or how people respond to my being gay."

Schmitt enjoys helping his students learn how to read a science paper like a scientist would, how to make sense of data about populations, and how natural selection can change a

population. He also leads students in doing work in the field. He teaches them how to collect observations and data, how to keep their feet dry when crossing a stream, and how to keep their shoes from being a warthog's snack!

Schmitt says, "Taking students with me to the field is always wonderful, and I think some of my favorite moments are when my family joins me. It's one thing to tell my boyfriend, nieces and nephews, and parents about all the adventures I have following the monkeys around, but bringing them with me to see the monkeys and the field in person is really special."