GLOBE North America Phenology Campaign:
Dr. Dave Steinberg Q&A Transcript

Dr. Dave Steinberg: I'm Dave Steinberg. I am a wildlife biologist at the University of New Hampshire.

U.S. GLOBE: What kind of research do you do?

Dave S.: I try to understand animals in their natural environments, what they're doing, what allows them to survive. I am also a herpetologist, which means I study reptiles and amphibians. For most of my career, I studied tropical lizards down in the Caribbean and in Central America. But more recently, I've been studying some salamanders and frogs that live up here in the northeastern United States.

U.S. GLOBE: When did you know you wanted to be a scientist?

Dave S.: Growing up, I had absolutely no idea that I wanted to be a scientist. I had no idea that being a wildlife biologist was even an option, but when I graduated high school, I didn't get into any colleges and sort of felt like I had no clue what to do with my life. All I knew was I liked being outside.

And so I looked online for jobs that allowed me to do that. And I ended up studying Prairie dogs and bubonic plague in the prairies of Montana. And at that moment I was like, this is what I want to do.

And so then when I applied to colleges the next time around, I made sure that I was looking for places that might give me the sort of training and educational opportunities that would let me pursue that sort of career.

U.S. GLOBE: What is the research question you've tried to answer?

Dave S.: So right now my colleagues and I are working together across a large part of the Eastern United States trying to see whether or not the timing of reproductive activity in amphibians and trees flowering and leaf out, whether those are changing across time as we're experiencing a warming climate. And so we have people who are collecting data in North Carolina and New Hampshire and Maine and Minnesota. And our hope is that at the end of the study, we can pull all of our data together and start seeing some broader scale patterns.

U.S. GLOBE: Why is studying phenology important?

Dave S.: Phenology is the study of the timing of often cyclical natural phenomena. And it's really important because the timing of when organisms or living things, do something can determine whether or not those living things themselves survive and whether the entire ecosystem is healthy.

So for an example, if you imagine a bird that is migrating in winter time, if the timing is off just a little bit, they may end up freezing. On the other hand, when they're coming back up north in the springtime, if they come a little too late, then they're going to miss out on some opportunities to gather food or find mates.

And so understanding sort of the precise timing of when animals and plants and other organisms are doing the things that are important for their survival really lets us get a better understanding of what the entire system's going to be looking like.

U.S. GLOBE: What equipment or technology do you use in your research?

Dave S: Most of my work requires really, really basic equipment and cheap supplies. In fact, what I use most often just a set of binoculars so I can watch animals from far away without disturbing them. I can also look up into trees and see what's going on with their buds or whether leaves are starting to emerge.

But occasionally we find the need to use more sophisticated or advanced equipment. And one example of that is with the frog calling phenology study that I'm working on right now. We set out these little audio recorders. We just strap them to trees. You can see there's a little microphone and this essentially is out there eavesdropping on frogs throughout spring and early summer, just listening to see whether or not males are calling to attract females and then recording those data so we can go back and analyze it later on.

Here's another example of some of the more advanced equipment that we occasionally use in our studies. This is simply an antenna and receiver and what we can do is put little radio transmitters on animals, for example on the back shells of turtles. And we can then follow them around out in their wetlands, in their bogs, in their marshes and see what the movement of different individuals is like at different times of the year, which might allow us to better help folks in conservation efforts.

U.S. GLOBE: What is your favorite fall activity?

Dave S.: In the fall, I absolutely love to relax and watch football on Saturday mornings and Sunday afternoons, but I also, every fall like to pick up a Stephen King novel and read that in October, just for the spooky feels that you get.

I also like canoeing and watching the changing colors on all the trees around here in New England.