

By Daniel T. Blumstein

Skiing for science

n Earth Day, while many of my friends and colleagues don lab coats and hoist signs celebrating science in Washington, D.C., and around the world, I will not be joining them. It's not that I don't support the March for Science; I do. I hope that it will showcase scientists' passion and commitment to understanding Earth's diversity, creating knowledge that improves human welfare, and providing evidence for policymakers. I support my fellow scientists who are committing valuable time to march, and I wish I could join them. But while my colleagues march, I will be doing time-sensitive field research in the Colorado backcountry. Everyone must do their part to support science, and for me right now, that means getting out and doing it.

As part of my team's research into how climate change affects ecosystems, we study yellow-bellied marmots' annual spring emergence from hibernation. In fact, you could say that I will miss the march because of climate change: The marmots now begin emerging from their hibernation in mid-April, more than a month earlier than they did in the 1970s, and we need to be there to document it.

So, tomorrow, I will leave for the field. Over the next few weeks, I will travel on backcountry skis and then sit on the snow for hours, scanning for signs of life. I will shake my arms for warmth and stomp my feet to regain feeling. I will peer through binoculars, squinting against the sun reflecting off the snow. During

my chilly vigil, I will watch for marmots tunneling through feet of snow from the pungent warmth of their winter hibernacula into the blinding sunshine. The work sometimes tests my stamina and patience, but I love it.

When I started planning this fieldwork season last fall, I was particularly looking forward to it because, for the past few years, administrative responsibilities have prevented me from getting into the field in the spring. Then when I heard about the March for Science, at first I was excited to participate. It was a harsh blow to learn that the march was going to conflict with my long-awaited plans.

Yet, although the timing of the march is frustrating, my decision was not difficult. I have committed much of my adult life to long-term field biological research; our marmot emergence project, which we have been conducting for 14 years, builds off a long-term study that began in 1962. Doing this type of work has frequently taken me away from my family and friends for weeks or months at



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a time, which can be difficultand can mean that I miss out on activities in the "real world" that I would like to participate in-but for me, it's the right choice.

These types of long-term ecological studies provide priceless insights into how the world works. They are also extremely effective for training the next generation of critical thinkers. But despite their importance, they are underfunded and underappreciated. The National Science Foundation is able to allocate only a few million dollars per year to support all of them; much more is needed if society is to have evidence at hand when creating policy to navigate our future. If I were able to attend the march, I'd have binoculars

dangling from my neck and a butterfly net in hand, and I would stump for more support for these studies.

Instead, while my friends and colleagues are marching, I'll be learning which of my marmot friends survived this year's very heavy snowfall. I'll shed a tear for some and cheer the survival of others. I'll miss the collegiality of the march, but I will sleep well knowing that I am doing my part to train the next generation of critical thinkers and collecting data that may help us learn about the limits that plants and animals face in adapting to a changing environment. And, once my fingers have warmed, I'll write to my friends and ask them how it went.

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