KIMBERLEY RAIN MINER

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PERSONAL STATEMENT

From fighting wildfires to working on frozen glaciers, my research on climate risks takes me to the most extreme environments in the world. I've sought out new scientific discoveries at the ends of the earth, traveling to both the North and South Poles, as well as high-mountain ranges in North America, Europe, and Asia. My entire life I have pursued adventure, refusing to let challenges like blizzards, illness or failed experiments hold me back. Resilience in the face of these challenges has been key to my journey as a scientist, and I believe it is one of the most important parts of science. Experiments are rarely perfect on the first try, so resilience can help define which experiments succeed and become breakthroughs. In my life, I've been a farmer, beekeeper, firefighter, glaciologist, climate scientist, emergency planner, and many other things -- always looking for the next scientific mystery to solve. Because regardless of where I am, my work has always been to figure out what is going to happen next. To travel the world, seeking out the future.

BIOGRAPHY

Dr. Kimberley R. Miner is a climate scientist with a focus on risk assessment and systems dynamics. At JPL, Kimberley works with international teams on the Arctic Methane Project looking at the impacts of climate change in the Arctic. She is a graduate of Columbia's School of International and Public Affairs (MPA) and University of Maine's Climate Change Institute (Ph.D.) where she continues her work as a Research Assistant Professor looking at global risks from climate change. In this capacity, she manages pollution research for the 2019 Rolex/National Geographic trip to Mt. Everest. She is a Fellow at the Center for Climate and Security and Co-chair of the NASA Interagency Forum on Climate Risks, Impacts, and Adaptation.

During her Doctoral research, Kimberley worked with multi-national teams in Canada, Switzerland, and Alaska to develop the first risk assessment of glacial meltwater pollution. For this research, she was awarded a Fulbright scholarship and fellowships from the National Science Foundation, Department of Defense, and the Switzer Foundation.

Prior to her Ph.D., Kimberley worked at Columbia's Lamont-Doherty Earth Observatory and the NYC Office of Emergency Management, creating platforms for scientists and emergency managers to engage with the public after Hurricane Sandy. Based on this work, she was invited to join a 2014-2015 NSF research trip to Antarctica where she traveled by boat from Chile to Palmer Station.

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SPEAKER TOPICS

1. Resilience: Fighting for what you believe, in life and in science
2. Do everything: Traveling all over the world, and what it has taught me
3. Talking about the future: What climate change holds for the world

SEGMENT PITCHES

Resilience is one of the defining characteristics of science.

In my life, I have had many opportunities to practice resilience. After hiking the Appalachian Trail in New York, I came down with a near-fatal case of Lyme disease. I was hospitalized for a month, with the left side of my face paralyzed and the doctors unsure of my future. After months of care, experimental science and medical treatments, I was just well enough to attend the first day of Freshman year in college while in a wheelchair. Through the encouragement of my family, newfound friends and meaningful lessons of professors who would become mentors, I was able to slowly recover. I was well known on campus for my positive attitude and determination to succeed at any task. I even graduated a full semester early. What I learned was the importance of resilience, so that now any expedition trials, whether blizzards, broken engines, or even climate change, are all just challenges waiting to be overcome.

What does climate change look like for you? Will it affect you and your family?

Research shows climate change can lead to more hurricanes, fires, sea-level rise and flooding, though it can be confusing to understand which impacts will affect each of us. My work is to identify where and when the worst parts of climate change will happen so that we can prepare for them. I look for patterns in the present to determine the most surprising and challenging impacts that could affect humans in the future. This helps us to plan for these disasters, no matter where and when they happen. Climate risk research helps families, cities, and states prepare for changes and protect themselves as the world changes in ways big and small.

ADDITIONAL LINKS

Dr. Kimberley Rain Miner website

Climate Change Institute: Dr. Kimberley Rain Miner

YouTube: Security Matters

Security matters: Miner resilient in efforts to strengthen the ecosystem

Five easy tricks to keep you warm this winter

Climate Trouble Keeps On Coming

Melting Glaciers Release Pollutants Frozen Decades Ago