UC SANTA BARBARA

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# Righting a Scientific Wrong

By all rights, Eunice Newton Foote should be a household name.

More than a century and a half ago, Foote was part of one of the most important scientific discoveries of our time: revealing the role of carbon dioxide in the earth's greenhouse effect.

And yet relatively few people have heard of her.

Foote was the first person to demonstrate that carbon dioxide is a greenhouse gas, and also the first person to suggest that an atmosphere containing high levels of carbon dioxide would lead to a warmer earth.

Her research findings, contained in the paper "Circumstances affecting the heat of the sun's rays," were presented at the August 23, 1856, annual meeting of the American Association for the Advancement of Science. Being female, however, Foote was not allowed to read her own paper. Instead, Professor Joseph Henry of the Smithsonian Institution spoke on her behalf.

A few years later, Foote's findings were reflected in the studies of physicist John Tyndall, whose research expanded on Foote's discovery. And while Tyndall's research is widely accepted as one of the foundations of modern climate science, Foote has faded to relative obscurity.

The organizers of an upcoming symposium at UC Santa Barbara hope finally to give Foote the credit she deserves. "Science Knows No Gender: In Search of Eunice Foote

Who 162 Years Ago Discovered the Principal Cause of Global Warming” will take place at 1 p.m. Thursday, May 17, in the McCune Conference Room, 6020 Humanities and Social Sciences Building. It is free and open to the public.

“Foote’s story has never been more compelling because it enhances the visibility of women in science, and their significant contributions,” said John Perlin, a research scholar in UCSB’s Department of Physics who will speak at the symposium. “Stories of brilliant women in science, such as the one we propose to tell, will empower and inspire.”

The event is co-sponsored by the environmental justice (EJ)/climate justice (CJ) hub of the UCSB Orfalea Center for Global and International Studies. EJ/CJ studies the global contours of environmental and climate injustice, investigates their deep structures and histories and seeks to intervene in their current political, cultural, economic and social practices and discourses by engaging the social movements, discursive productions and policy measures that address them.

According to John Foran, a professor of sociology at UCSB and a convener of the EJ/CJ hub, what happened to Foote offers a profound teaching moment for the university community. “It is precisely that, and it relates to the concept of social justice, which lies at the heart of the climate dilemma,” he said. “Until we mobilize effectively the potential of all members of the world community, we will be fighting the greatest existential threat in the history of our species with one hand tied behind our backs.”

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## About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.