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Catching Fire

An interdisciplinary summer seminar at UC Santa Barbara tasked aspiring scientists with studying an issue of big-time regional relevance: fire.

Six undergraduate and master's level students from universities across the country traveled to UCSB to examine new strategies for managing wildfire under conditions of climate change. Hosted by SERI (Strategic Environmental Research Initiative) Fire, an initiative of UCSB's Bren School of Environmental Science & Management, the weeklong course focused on the urban-wildland interface in the western United States, a particularly apt topic given that Santa Barbara has experienced multiple fires in the past decade.

"I loved the size and diversity in participants, plus the full execution of a project," said seminar participant Emily Hyde, a senior at Oklahoma State University studying freshwater resources. "Seeing a fruitful product of the project was wonderful."

Hyde and her fellow students participated in two days of lectures on wildfire management and applied data analysis, and learned human natural systems modeling techniques. They also were introduced to the basics of interdisciplinary research and collectively decided on a focal inquiry for the week: the effects of fuel treatments on housing values and carbon stocks.

"With a focus on underrepresented minorities and women in science, we wanted this program to provide a taste of Ph.D.-level interdisciplinary research in a hands-on setting," explained Sarah Anderson, a Bren associate professor who specializes in

environmental politics. Some of Anderson's own research focuses on how public and political factors affect decisions regarding the management of wildfire fuels, such as brush and undergrowth.

Field trips took seminar participants to Sedgwick Reserve, part of the UC Natural Reserve System under the stewardship of UCSB, and to the site of the recent Whittier Fire burn area along Highway 154. The students then collaborated to answer their research question, using literature review, data analysis and model simulations to analyze wildfire management scenarios. The final product: A student-created poster presented to the SERI Fire team, which includes Bren faculty members Andrew Plantinga and Naomi Tague, and fire ecologists Max Moritz of UC Berkeley and Maureen Kennedy of the University of Washington.

"The students were able to give recommendations for the kinds of thinnings that fire managers might put on the land to make sure that home values aren't reduced too much and that the forest continues to be a carbon sink," Anderson said.

The students hailed from California State University Fullerton, The Ohio State University, Oklahoma State University, Pennsylvania State University, North Park University in Illinois and the University of Maine. With areas of study including forestry, economics, environmental science and geography, each brought unique experience and expertise to the summer program, from fighting wildfires in Northern California to conducting forestry fieldwork in Central America.

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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.