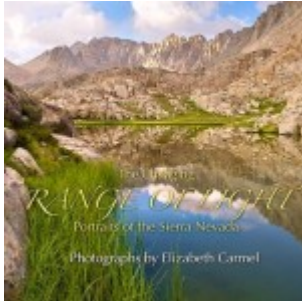


Landscape photographer delves into climate change

By Kathryn Reed



INCLINE VILLAGE – Photographs of sub-Alpine conifers, fields of lupine and the boulder lined East Shore of Lake Tahoe are more than just pretty pictures to scientists. They can represent what climate change is doing to the local and surrounding environment.

“Changing Range of Light: Climate Change in the Sierra Nevada” is part landscape photography coffee-table book, part educational resource, part poetry.

“I feel it is important to educate the public about the threats to these landscapes,” photographer Elizabeth Carmel told the approximately 70 people who chose not to watch Game 7 of the NBA Finals.

She found inspiration for her second book from John Muir, who coined the phrase “Range of Light” and whose writings helped preserve the Sierra Nevada; as well as photographer Ansel Adams, who captured in a different way much of what Muir had done with words.

The idea was to delve into what is going on environmentally in the Sierra Nevada in the 21st century. Carmel’s pictures are complemented by easy to read text from two scientists as well as poems from well-known writers.

The Squaw Valley Institute and UC Davis Tahoe Environmental

Research Center (TERC) brought Carmel, and scientists Geoff Schladow and Bob Coats together at Sierra Nevada College on June 17 for a presentation about the book the three collaborated on. This was the first time the trio had given a talk together.

Carmel has been a professional photographer for the last decade. She has a studio on Truckee. Schladow is the founding director of TERC. He has a doctorate in civil and environmental engineering. Coats has a consulting firm called Hydroikos Ltd. He has a doctorate in wildland resource science.

Schladow touched on how as the Earth warms, trees in one region will vanish and appear in another to stick with the climate they are used to thriving in.

As droughts become longer and more sustained, it's possible the level of Lake Tahoe will consistently remain below its natural rim. This could turn lush meadows into muddy or dry fields.

"Imagery can be used to quantify climate change, though that is not the purpose of this particular book," Schladow said.

Schladow shared an editorial from November 1957 from a paper in Indiana that first mentioned global warming.

Climate change is not a new phenomenon, the scientists said. What they said is different now is that in the last 200 years there has been a dramatic spike in climate change because of carbon dioxide in the environment from humans.

Coats said the level of CO₂ in the atmosphere is the highest it's been in thousands of years.

He said if the temperature changes by 5 degrees Celsius by the end the century, Lake Tahoe at 6,200 feet would be similar to what life currently is like at 4,500 feet.

Coats also said as the lake warms the level of phosphorous will dramatically change, which in turn will have a profound negative affect on lake clarity.

For more information about the book, call (530) 582.0558 or [click here](#).