

Climate change debate packs library

By BRAD STUTZMAN

According to speakers at a July 17 debate that drew some 160 people to the Georgetown Public Library, climate change is either one of the greatest threats facing life on Earth — or it's a hoax being promoted in order to control lives.

The topic, "Man-Made Climate Change: Fact or Fiction?," produced a lively discussion among members of the four-person panel. Georgetown Community Forum sponsored the event, with forum member Brian Bolton serving as moderator.

Panelist Emily Northrop, from Southwestern University's faculty, acknowledged she is not a climate scientist but argued the stakes are too great to ignore those who are.

Dr. Northrop earned her doctorate in economics from the University of Texas at Austin. "Climate change and the liberal arts" and "environmental economics" are among the courses she teach-

ers at Southwestern.

In her opening remarks, Dr. Northrop emphasized an oft-repeated statistic.

"Ninety-seven percent of the published climate scientists have concluded humans are causing today's global warming," Dr. Northrop said. "With so much at stake, it is too risky to count on the 97 percent being wrong ... It is possible that the 97 percent are incorrect, but we shouldn't bet the future that they are."

"The 97 percent refers to climate specialists," Dr. Northrop explained later during the debate. "[They] are the authors on peer-reviewed scientific articles."

She also alluded to National Aeronautic and Space Administration studies, stating NASA has concluded: "Humans have caused major climate change to happen already and we have set in motion more changes still."

According to the NASA website *Climate Change* —

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Panel debates climate change

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"Humans have increased CO₂ (carbon dioxide) concentration more than a-third since the Industrial Revolution. This is the most important, long-lived 'forcing' of climate change."

A "forcing" is any influence on the climate that originates outside that climate — meaning, in this case, man-made factors including the burning of fossil fuels such as coal, petroleum and natural gas.

Skeptics push back



From the other side of the spectrum, Sun City residents Henry Savage and Bob Parmelee argued that Earth's climate has changed throughout the planet's history, with warming and cooling periods occurring naturally.

The question of anthropomorphic or man-made change is another matter, each man stated.

"I have a confession to make — I am a skeptic," Mr. Parmelee said. "I'm not just a skeptic. I think this is an out-and-out hoax."

Mr. Parmelee, who is a retired executive from the computer and semiconductor industries, said he believes the "hoax" is part of a plan for American and global income redistribution.

"The real goal is to levy confiscatory carbon taxes on the productive people of the world," he said.

Henry Savage earned a doctorate in chemical engineering from Yale University. He said that despite the "97-percent" statistic, it's too soon to draw conclusions regarding what degree humans — through the burning of carbon dioxide-releasing fossil fuels — contribute to global warming.

"Good science is never settled by a vote," he said.

"There is much to learn," Dr. Savage continued. "The science is not settled. We know what greenhouse gases are. We know their concentration in the atmosphere. Where we have a lot to learn is related to the oceans, clouds, the biosphere [the sum of all ecosystems] and solar physics [the study of the sun]."

Dr. Savage worked in the petroleum industry, in research and development, for 30 years.

He said if global warming is occurring, neither scientists nor laypersons can tell what is happening naturally and what is man-made — nor is it possible to predict what the future holds.

"We do not have good predictive models for forecast," Dr. Savage said.

What should be done?

Dr. Kerry Cook, from the Geological Sciences Department at the University of Texas in Austin, formerly taught at Cornell University in Itha-

ca, New York. She has been studying climate change since 1984, starting with work on her doctoral thesis.

Dr. Cook said global warming is both real and man-made. "It's just about science," she said. "It's just about the facts. It's just about observation and our understanding of the climate. It's not partisan. It's just the facts."

"We have to be realistic and understand the facts," Dr. Cook continued. "The reason there's so much pushback is it's really hard to change our energy systems. But we have to, not just for ourselves but for our children and our grandchildren."

"We could drive less," Dr. Northrop suggested. "Buy less stuff. Eat less meat. Those of us who fly could fly less."

But Dr. Northrop also said individual lifestyle choices won't make enough of a difference on their own. It will take legislative action from elected government leaders.

She said 43 Republicans and 43 Democrats serve on the Climate Solutions Caucus, which was formed in the U.S. House of Representatives in 2016.

Caucus co-chairman Carlos Curbelo, a Florida Republican, has written on his website that the Caucus's purpose is "to educate members on economically-viable options to reduce climate risk and to explore bipartisan policy options that address the impacts, causes and challenges of our changing climate."

Dr. Northrop said the collection of fees for carbon emissions — and the payment of carbon dividends to individual households — while promoting alternative energy sources, would be one way to wean the U.S. off fossil fuels.

Who has credibility?

Panelists also disagreed on the benefits and harm caused by carbon dioxide emissions.

CO₂ is a greenhouse gas (others include water vapor, methane and ozone) and greenhouse gases contribute to global warming. Burning fossil

fuels releases more CO₂ into the atmosphere than would be released naturally.

Greenhouse gases are a natural part of the Earth's atmosphere. Without them, the planet would be too cold and life as we know it would be impossible, according to the Climate Central website. The flip side is too much CO₂ could warm the planet to a point where life as we know it is impossible.

"The concentration of CO₂ in the atmosphere is so low that its impact is trivial," Dr. Savage asserted.

Furthermore, he said because carbon dioxide plays a role in photosynthesis, plant-based foods and, ultimately, people, are beneficiaries.

He said a United Nations study projects that by 2050 the world's population will be about 9.8 billion (up from 7.6 billion now). World food production will need to increase by as much as 70 percent.

By way of comparison the Earth's population did not reach 1 billion until about 1800 and was only 3 billion in 1960.

"I think some of us will live to see the day when there is a call for CO₂ increase in the atmosphere, for food production," Dr. Savage said. "Vast increases in food production will be required or people are going to starve to death."

"CO₂ is plant food," Dr. Northrop acknowledged. "If we could just have CO₂, without the heat increase it causes ... the heat does more harm than the extra CO₂ does good."

When asked if the world's scientific organizations are wrong about dangers posed by global warming and climate change, Mr. Parmelee had this to say: "These people frankly are dangerous. You can't put the lives of your family or the life of our country in their hands."

"Seventy percent of the U.S. population now believes in climate change and that it is caused by human activity," Dr. Cook said. "That's more than believe in evolution."