



MELTING—A glacier in Greenland erodes due to warmer temperatures. Changes in the Arctic ice were documented by photographer James Balog.

Photo: Chasing Ice

'Chasing Ice' leads to climate discussion

By DAVID GREEN

Photographer James Balog remembers when he was skeptical about climate change. That attitude changed completely when he studied glaciers.

Balog's award-winning documentary film "Chasing Ice" was viewed by a crowd of 51 people Jan. 30 at Stair District Library as part of Morenci Area High School Green Earth Club's (GECKOs) series of movies about environmental issues.

Balog captured images of glaciers over time and compared them to historical records. The results were shocking. Mountains of ice in place for thousands of years were melting away.

One area showed a decline in glacial height equal to the Empire State Building. In another location, glaciers had retreated eight miles in a hundred-year period ending in 2000. In the next 10 years alone, an additional nine miles disappeared. A 2.5-mile retreat was noted over three years at another glacier.

It wasn't only the disappearance of glacial ice that shocked Balog. He learned about the science of studying ice cores taken from glaciers that clearly shows the change in air quality through the centuries. Changes in the chemistry of the air cemented Balog's belief that climate change is the result of human activity.

In a discussion following the film, Russ Tompkins stated his frustration with how climate change has gone from science to politics.

"What upsets me is that we want to make a political issue out of it," Tompkins said. "There are a number of politicians who think

it's all hokey and mad science and they won't acknowledge it at all. That's what we face. You've got to convince the people who control the reins of the government that this is a real thing."

Sybil Diccion noted that one presidential candidate believes that climate change is a much larger threat than ISIS, and he was laughed at for making the statement. But it's not only the skeptics who are a problem, she said. Many people accept that major changes are underway, but they don't want to act on it.

"We close our eyes to it and say 'It doesn't affect me,'" she said.

There's also the contention that complying with environmental regulations is too costly for corporations, so the problems are ignored.

In the Detroit suburb of River Rouge—one of the state's dirtiest Zip Codes—Marathon Petroleum is seeking permission to increase sulphur dioxide emissions in order to change the refining process, Diccion said. The change would make automotive fuel cleaner, but cause more problems for the people of Detroit.

Rich Decker said that glacial melt can already be viewed in California and the disappearance of ice caps will result in a decrease of fresh water. The Great Lakes will become an extremely important source of water.

"We need to take control of what we do today to make a difference for tomorrow," Decker said.

Tompkins doesn't believe the candidate that Diccion referred to—Bernie Sanders—can get elected, but he agrees with his state-

ment about climate.

"He makes an excellent point," Tompkins said. "Groups like ISIS come and go, but you're not going to see the end of climate change."

People are following what their party says and not what they believe, Decker said. It's like having eight of 10 dentists tell you that your tooth needs to be pulled, but instead you listen to the two who say not to do it.

Tompkins said it's unfortunate that the issue was first made known as global warming instead of climate change. Now, whenever deep snow falls, many people make jokes about warming.

Darian Double stated that air passing over the warmer ocean water picks up so much energy and moisture, and this can result in extreme weather.

German exchange student Rebecca Rosenberger was asked what attitudes are like in her home culture. In Germany, energy costs are much higher than in the U.S., she said, and that forces people to look at other approaches.

About 30 percent of homes have solar collectors, and wind turbines are common. By contrast, in America, a large percentage of high school students drive a car to school, but that's not the case in her home area.

In 2014, renewable energy sources provided about 28 percent of Germany's power—more than twice the level of the United States. A new daily record was set July 25 last year when approximately 78 percent of Germany's electricity came from renewable sources.

"Carbon deposits found on the glaciers

didn't come from Greenland," Diccion said, "but even if we don't believe in it, why not do some of the little things that make a difference?"

Colleen Leddy agreed.

"It's really frightening because it's your generation that's going to be so affected by this," she said to the students in the audience. "Really dramatic changes are forecast within the next 35 years and that's your life when you'll be working and raising kids."

Take measures to stop practices that aren't good for the planet, she said. Whether or not they have the impact that's predicted, it's just a good way to live.

She suggested reading a recent New Yorker magazine article about flooding problems that have become commonplace in Miami Beach.

"My advice," Tompkins said, "don't buy a condo in Miami."

Tom Smith asked if there are programs similar to the Green Earth Club's series in other area communities.

"This movie should be playing somewhere other than just here for 51 people," he said.

Club advisor Heather Walker said the film has won many awards and she's hoping exposure to it grows.

She urged people to take on conservation practices on a small scale in their own lives, both in how they live and how they consume. If people demand a certain product, companies will make what you want to buy.

"You have to plant a seed and make it grow," Decker added.

• *The Green Earth Club's next program will focus on the reduction of the bee population.*

What You Can Do at Home

— U.S. Environmental Protection Agency

1. Change five lights

Replace your five most frequently used light fixtures or the lightbulbs in them with ENERGY STAR® qualified products and you will help the environment while saving \$70 a year on energy bills.

2. Look for ENERGY STAR

When buying new products for your home, look for EPA's ENERGY STAR label to help you make the most energy-efficient decision. You can find the ENERGY STAR label on more than 60 kinds of products, including appliances, lighting, heating and cooling equipment, electronics, and office equipment. Over their lifetime, products in your

home that have earned the ENERGY STAR label can reduce greenhouse gas emissions by about 130,000 pounds and save you \$11,000 on energy bills.

3. Heat and cool smartly

Heating and cooling accounts for almost half your energy bill—about \$1,000 a year. There is a lot you can do to drive down this cost. Simple steps like changing air filters regularly, properly using a programmable thermostat, and having your heating and cooling equipment maintained annually by a licensed contractor can save energy and increase comfort, while helping to protect the environment.

4. Seal & insulate your home

Reduce air leaks and stop drafts by using caulk, weather stripping, and insulation to seal your home and add more insulation to your attic to block out heat and cold to save up to 20 percent on heating and cooling.

5. Reduce, reuse, recycle

Reducing, reusing, and recycling in your home helps conserve energy and reduces pollution and greenhouse gas emissions from resource extraction, manufacturing, and disposal. If there is a recycling program in your community, recycle your newspapers, beverage containers, paper, and other goods.

6. Use water efficiently

It takes lots of energy to pump, treat, and heat water, so saving water reduces greenhouse gas emissions. Saving water around the home is simple. Three percent of the nation's energy is used to pump and treat water so conserving water conserves energy that reduces greenhouse gas pollution. Reduce the amount of waste you generate and the water you consume whenever possible. Pursue simple water-saving actions such as not letting the water run while shaving or brushing teeth and save money while conserving water by

using products with the WaterSense label. Did you know a leaky toilet can waste 200 gallons of water per day? Repair all toilet and faucet leaks right away. Running your dishwasher only with a full load can save 100 pounds of carbon dioxide and \$40 per year. Be smart when irrigating your lawn or landscape.

7. Be green in your yard

Composting your food and yard waste reduces the amount of garbage that you send to landfills and reduces greenhouse gas emissions.

8. Purchase green power

Power your home by purchasing green power. Green power is environmentally friendly electricity that is generated from renewable energy sources such as wind and the sun. There are two ways to use green power: You can buy green power, or you can modify your house to generate your own green power. Buying green power is easy. It offers a number of environmental and economic

benefits over conventional electricity, including lower greenhouse gas emissions, and it helps increase clean energy supply.

9. Calculate your household's carbon footprint

Use EPA's Household Carbon Footprint Calculator to estimate your household greenhouse gas emissions resulting from energy use, transportation, and waste disposal. This tool helps you understand where your emissions come from and identify ways to reduce them.

10. Spread the word

Tell family and friends that energy efficiency is good for their homes and good for the environment because it lowers greenhouse gas emissions and air pollution.

• *Looking for more ideas? Check out the book "47 Things You Can Do for the Environment" by Lexi Petronis, available at Stair District Library. The book is targeted toward teen readers.*