

# Earthweek: Diary of a Changing World

Week ending Friday, February 21, 2020

By Steve Newman

## Ice Volcanoes

A phenomenon that might seem more likely on an alien world was captured by a photographer from the National Weather Service in Grand Rapids, Michigan.

A pair of ice “volcanoes” were spouting through the expanding ice shelf of Lake Michigan during a frigid blast from the north.

The formations spewed water as waves on the lake passed under the ice shelf, forcing the water up through the cracks in the previously formed cones.

The spewing water froze almost instantly in the bitter chill, causing the ice volcanoes to grow even larger.

Lake-goers were warned not to venture near the dangerous hollow structures.

## Earthquakes

A sharp quake in far southern Iran was felt widely across the Persian Gulf in the United Arab Emirates. Minor damage occurred near the epicenter.

• Earth movements were also felt in Papua New Guinea’s New Britain region, Indonesia’s Maluku Islands, Fiji and eastern Taiwan.

## Burp Control

A European Union-funded project has developed the technology to capture cows’ methane-filled burps, which contribute nearly 15% of the world’s total greenhouse gas emissions.

England-based ZELP, or Zero Emissions Livestock Project, developed masks that turn methane-filled burps into water and carbon dioxide.

While CO2 is also a greenhouse gas, the methane in cow burps traps 28 times more heat in the atmosphere. The masks could start selling as early as next year.

“I’m making sure that people understand that this is viable, that this is scalable and that this is an efficient solution to the problem,” said ZELP CEO Francisco Norris.

## Insect Invaders

Researchers say they have found different types of insects that have managed to get a foothold in Antarctica, apparently able to survive on and around the frozen continent.

It is not known if *Eretmoptera murphyi* arrived by boat or plane, in the clothing of scientists or from larvae in a container of water. But scientists say it presents a potential danger to the delicate ecosystem and can’t be eradicated with insecticide.

Uruguayan polar scientists found an invasive crane fly, *Trichocera maculipennis*, which also threatens to expand its territory.

## Seafood Soup

Freakishly warm water off the northern tip of New Zealand during early February cooked up to 500,000 wild mussels alive in an event linked to climate change.

Auckland resident Brandon Ferguson discovered the dead mollusks as he waded through water choked with mussel shells. Similar die-offs have been observed in New Zealand during recent years involving clams and cockles.

“The common denominators seem to be really hot conditions with lots of sunlight and unusually calm waters for an extended period,” Waikato University marine ecologist Chris Battershill told AFP.



This was one of a series of ice “volcanoes” to erupt along the coast of Lake Michigan during an Arctic chill. Photo: U.S. National Weather Service

## Warming Culprits

The oil and gas industry has underestimated its methane gas emissions by 40%, according to a new study into the sources of the potent greenhouse gas.

The amount of methane in Earth’s atmosphere has more than doubled during the past two centuries, and scientists have been uncertain how much has come from agriculture, livestock and the burning of fossil fuels.

It’s believed methane is responsible for at least 25% of all global heating.

Oil refineries regularly vent the colorless and odorless gas directly into the atmosphere. Methane also seeps into the air during the extraction of natural gas.

## Southern Cyclone

Former Cyclone Uesi brought heavy rain and strong winds to New Zealand’s western coast after passing directly over Australia’s Lord Howe Island.

There, the storm downed trees and caused minor damage on the World Heritage-listed island.

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