

Earthweek: Diary of a Changing World

Week ending Friday, August 7, 2020

By Steve Newman

Auroral Tremors

Alaskan researchers say they have found that brilliant displays of the northern lights during solar storms show up as distinctive signals on seismographs, giving them yet another way to document auroral activity.

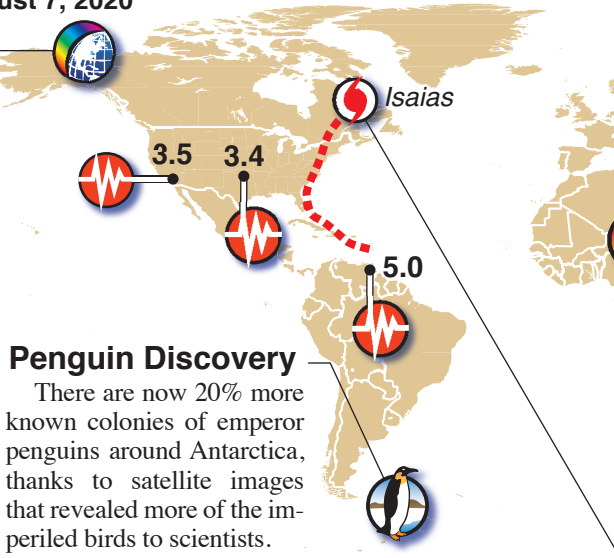
Writing in *Seismological Research Letters*, Carl Tape and colleagues at the University of Alaska Fairbanks say they made the connection by comparing seismograph records with all-sky camera recordings and readings from magnetometers.

“People have been making these connections for 250 years,” Tape said. “This shows that we can still make discoveries, in this case with seismometers, to understand the aurora.”

Earthquakes

Scattered damage was reported following the stronger of two tremors that shook southeastern Turkey’s Malatya province.

- Earth movements were also felt in the southern Philippine island of Mindanao, Trinidad and neighboring parts of Venezuela, north-central Oklahoma and greater Los Angeles.



Penguin Discovery

There are now 20% more known colonies of emperor penguins around Antarctica, thanks to satellite images that revealed more of the imperiled birds to scientists.

Emperors are the only penguin species that breed on sea ice instead of on land, making them highly vulnerable to climate change.

“Whilst this is good news, the colonies are small and so only take the overall population count up to ... just over half a million penguins,” said lead researcher Peter Fretwell at the British Antarctic Survey.

He made the discovery by examining images from Europe’s Sentinel-2 spacecraft.

Fretwell says there still may be one or two other very small colonies yet to be discovered.

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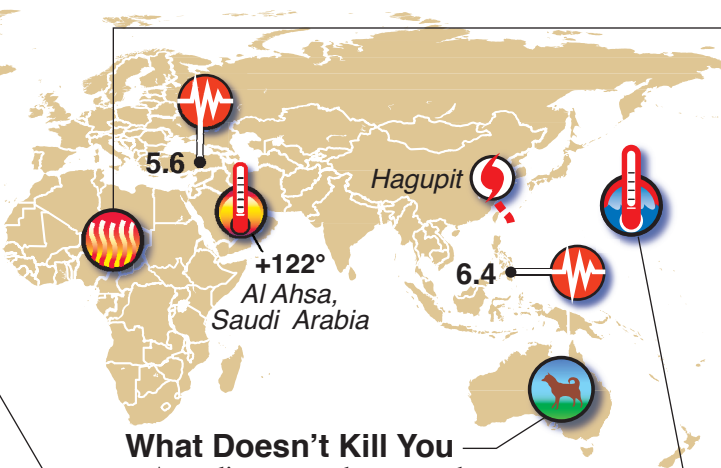
Tropical Cyclones

Rapidly moving Hurricane Isaias raked a long stretch from the Greater Antilles to the Bahamas and parts of the eastern U.S.

The storm spawned numerous destructive tornadoes and left at least eight people dead in the U.S. and two fatalities in the Dominican Republic.

- Typhoon Hagupit drenched eastern China, including metropolitan Shanghai, after roaring ashore in Zhejiang province.

Hagupit later lost force over the Yellow Sea between China and the Korean Peninsula.



What Doesn’t Kill You

Australian researchers say they now know why dingoes that survive efforts to control their population with baited poisons have grown larger during the last 80 years of the practice.

Dingoes living in baited areas have gotten between 6% and 9% larger, depending upon their gender, compared to those living in areas where the 1080 poison was not used.

“The most likely theory is that dingoes who survive baiting campaigns have less competition for food,” says researcher Mathew Crowther of the University of Sydney. He adds that there are more of the dingoes’ main prey of kangaroos near where the dingoes have been poisoned.



Dingoes in some parts of Australia are growing larger. Photo: Peter Contos

Heat Hazard

A largely undocumented and growing human death toll from rising global temperatures will soon surpass the number of fatalities from all infectious diseases around the world if carbon emissions are not curbed, according to a new study.

University of Chicago researcher Amir Jina, writing for the National Bureau of Economic Research, says both rich and poor countries will eventually suffer unbearable heat from the mounting climate crisis unless action is soon taken.

Heat Refugees

The growing number of heat waves in the world’s oceans due to the climate crisis is causing species such as sea turtles, whales and other marine life to move tens to thousands of miles to escape the freakish warmth.

Scientists from the U.S. environment agency NOAA have dubbed the ecological migration “thermal displacement.”

The intensity of the heat waves isn’t the biggest factor in the displacement, but rather the gradient or rate at which the temperature changes across the ocean.