

Earthweek: Diary of a Changing World

By Steve Newman

Week ending Friday, October 12, 2018

Existential Threat

A group of the world's most preeminent climate experts warned that only rapid and large-scale measures to stem the pace of global warming can prevent severe food shortages, submerged coastal areas and catastrophic weather events in as soon as the next 20 to 40 years.

They predict that more frequent and severe heat waves and other environmental changes from a warmer world will make some areas uninhabitable within many of our lifetimes.

The Nobel Prize-winning Intergovernmental Panel on Climate Change announced at a meeting in South Korea that holding the warming to less than 1.5 degrees Celsius from pre-industrial levels could make a life-or-death difference for many.

That level is likely to be surpassed between 2030 and 2052 unless there is a massive investment to immediately start eliminating most greenhouse gas emissions.

But some at the meeting said there probably isn't enough political resolve to make that happen.

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Reconciliation

The quality of ultrasonic chatter between California mice after one in a pair has been unfaithful seems to determine how successful the couple will be at producing and nurturing a litter of pups, new research finds.

California mice are fierce and pretty much monogamous once bonded in their scrubby woodland habitats of California and northern Mexico. But researchers introduced "cheating" by moving some females to briefly live with a new male before being placed back with the original mate.

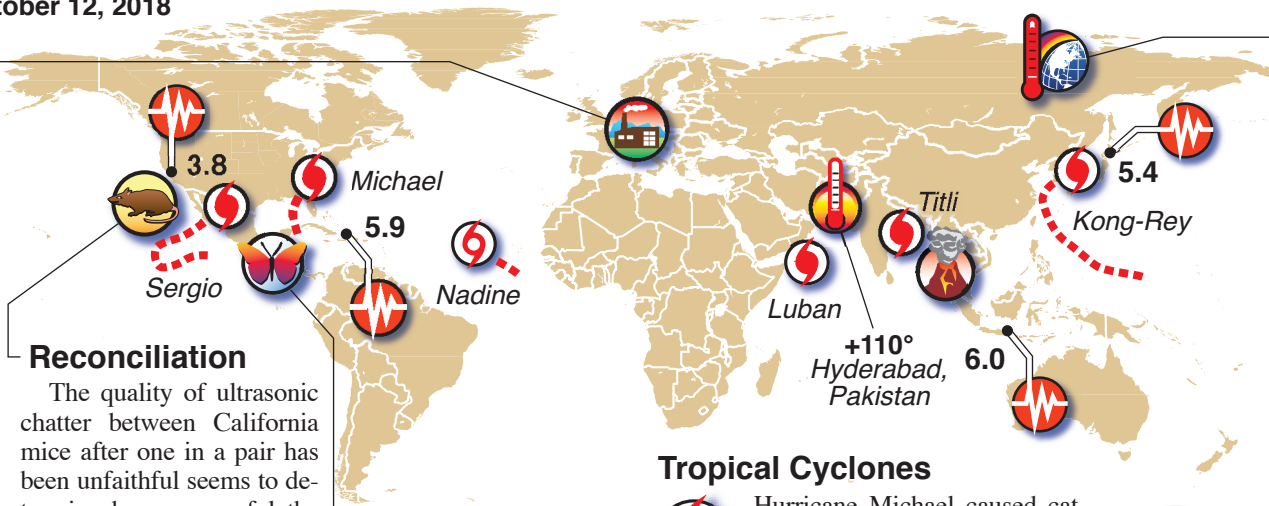
"The more affiliative or 'loving' and resilient a pair was after that infidelity experience, the faster the male was in responding to a pup's needs," said University of Wisconsin-Madison researcher Josh Pultorak. "They were better dads."

Monarch Gains

The Mexican forest reserve where millions of monarch butterflies spend the winter saw deforestation drop by 57 percent this year compared to 2017, the World Wildlife Fund (WWF) reported.

"The forest's degradation has dropped due to a decrease in large-scale illegal logging operations, the end of the damages caused by the 2016 storms and the absence of weather events," said Jorge Rickards, head of WWF Mexico.

But small-scale illegal logging in the Monarch Butterfly Biosphere Reserve saw a slight rise, with about 3.5 acres of forest lost.



Tropical Cyclones

Hurricane Michael caused catastrophic damage across the Florida Panhandle as the third-most powerful named storm ever to strike the U.S. mainland.

- Two people died in South Korea in the wake of former Typhoon Kong-Rey.
- Category-2 Cyclone Titli killed eight people as it ravaged India's central Bay of Bengal coast.
- Remnants of Hurricane Sergio drenched northwestern Mexico as Tropical Storm Luban formed in the western Arabian Sea.
- Tropical Storm Nadine churned the eastern Atlantic.

Earthquakes

At least 17 people perished when a magnitude 5.9 temblor centered in northern Haiti rocked the entire country. More than 300 others were injured.

- A sharp quake in eastern Java killed at least three people and damaged numerous buildings.
- Earth movements were also felt in northern Japan's Hokkaido Island and southern parts of the San Francisco Bay Area.

Growth Spurt

Three decades of observations revealed that taller shrubs, grasses and other plants are growing in the Arctic as the region warms faster than any other part of the world.

A team of 180 researchers who gathered data across Alaska, Canada, Iceland, Scandinavia and Russia found indications that global warming is driving the taller growth. They believe that the height of the plants could eventually double this century and help make Arctic temperatures warm even further.

"That doesn't seem like a very dramatic increase, but if you compare it to the ecosystems around your house, like the forest nearby — if you imagined that forest getting twice as tall, that is a pretty dramatic change," lead researcher Isla Myers-Smith told BBC News.

Eruption

India's only active volcano spewed ash and lava above the Andaman and Nicobar Islands, to the east of the Bay of Bengal. The eruption of the Barren Island volcano was the first since February 2016.