

Earthweek: Diary of a Changing World

Week ending Friday, May 23, 2025

By Steve Newman

Coastal Refugees

Scientists warn that rising seas will force millions to flee coastal areas even if the global temperature increase remains below 1.5 degree Celsius of warming.

Melting from the Greenland and Antarctic ice sheets, now the main drivers of sea-level rise, has quadrupled since the 1990s.

Even with rapid greenhouse gas emission cuts, seas could still rise by 0.4 inch per year by century's end, outpacing our ability to build protections against it.

About 230 million people worldwide live on land at or below 3.3 feet of current sea level, and even an additional rise of 8 inches by 2050 could cause \$1 trillion in annual damages to the world's largest coastal cities.

Earthquakes

Much of the eastern Mediterranean was rocked by a strong tremor that caused structural damage on Crete.

• Earth movements were also felt in northern Papua New Guinea, the Philippine island of Mindanao, central Myanmar, central Turkey and southern Peru.

Colorful Discovery

Researchers have announced a dazzling new species of poison dart frog they recently found in Brazil's Juruá River Basin.

The thumbnail-sized amphibian, named *Ranitomeya aetherea*, sports golden legs, pale aqua stripes and a spotted belly. It was first spotted in 2023 after scientists tracked down a strange call in the rainforest.

Unlike many frogs, this species appears to lay single eggs in the water-filled bases of palmlike plants, where its tadpoles are fed unfertilized eggs from the mother.

The frog's survival may be at risk due to deforestation in its limited habitat, prompting researchers to involve local communities in conservation efforts.

Lost Forever

Glaciers around the world are unlikely to recover for centuries, if ever, even if global temperatures are eventually brought back down below the 1.5 degree Celsius limit set by the Paris Agreement, a new study finds.

Scientists at the University of Bristol and the University of Innsbruck modeled what would happen if the planet temporarily warms past the 1.5 degree Celsius goal, reaching 3 degrees before cooling again.

Even in that best-case recovery scenario, glaciers would still melt far more than if warming had never crossed the 1.5 degree mark.

Insect Smuggling

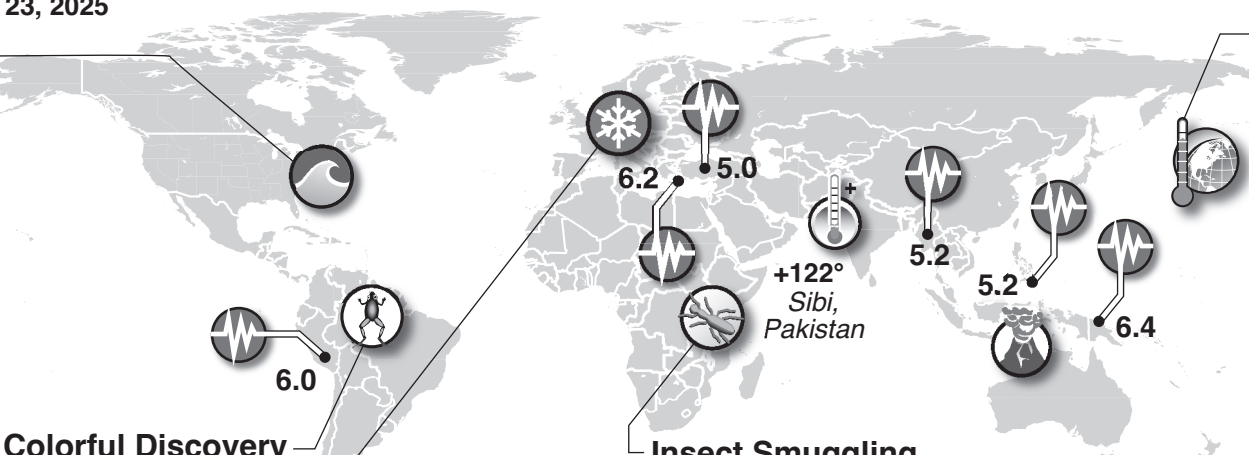
The trade in exotic insects poses growing risks to wildlife and human health, experts warn, with the trafficking in ants and other species still largely unchecked.

A recent case in Kenya saw four men arrested for trying to smuggle more than 5,000 ants, including valuable giant African harvester ants. Conservationists say such trafficking threatens ecosystems by introducing invasive species and creating new pathways for diseases to spread between wildlife and humans.

Unlike larger, high-profile wildlife crimes, insect smuggling is harder to detect and is often overlooked by law enforcement despite its global reach.



This tiny but exquisite new-to-science frog species was found in a remote Brazilian rainforest. Photo: Alexander Tamanini Mônico



1.5 Degree Trend

Earth is on track to exceed the 1.5 degree Celsius global warming threshold for a second straight year, raising fresh concerns about the long-term viability of the Paris Agreement's most ambitious climate goal.

April 2025 was the second-warmest April ever recorded, with global temperatures roughly 1.5 degrees above preindustrial levels.

With 21 of the past 22 months topping the 1.5 degree mark, climate scientists are warning that breaching the Paris threshold over a 20-year average could happen by the 2030s.

While the 1.5 degree target may be slipping out of reach, experts say it remains critical to limit warming to less than 2 degrees to avoid the worst climate impacts.

Flores Eruption

Indonesia raised the alert level for Mount Lewotobi Laki-laki to its highest tier after the volcano erupted nine times in three days.

The volcano, located on Flores Island, spewed ash clouds 18,000 feet high.

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