



**Week ending Friday, January 28, 2022**

### **A Toxic World**

A new study suggests chemical pollution has become so pervasive that it has pushed Earth outside the relatively stable environment of the past 10,000 years. Beyond the widespread use of plastics, researchers say they are also highly concerned about 350,000 synthetic chemicals, including pesticides, industrial compounds and antibiotics. “There has been a fifty-fold increase in the production of chemicals since 1950 and this is projected to triple again by 2050,” research team member Patricia Villarrubia-Gómez of Sweden’s Stockholm Resilience Center said. “Shifting to a circular economy is really important. That means changing materials and products so they can be reused, not wasted,” Villarrubia-Gómez added.

### **African Cyclone**

Tropical Storm Ana killed 34 people as it raked Madagascar before striking southeastern Africa. Four others died in flash flooding and mudslides as far inland as Malawi.

### Pollination Stress

Bees, butterflies and other pollinators exposed to common air pollution are significantly impaired in their ability to sniff out the plants that depend upon them, according to new field research. British scientists say the pollution, combined with land use changes, are also responsible for an up to 70 percent drop in the number of pollinating insects. Writing in the journal "Environmental Pollution," the team said they exposed a test field to levels of pollution commonly found near highways and observed up to 90 percent fewer flower visits by the pollinators. They believe the pollution changes the scents of flowers, making them harder to find.

### Massive Melt

Satellite images reveal that a massive iceberg that broke off from Antarctica in 2017 and slowly drifted toward the sub-Antarctic island of South Georgia last year, has released an astonishing 152 billion tonnes of fresh water into the South Atlantic as it disintegrated. "This is a huge amount of melt water, and the next thing we want to learn is whether it had a positive or negative impact on the ecosystem around South Georgia," Anne Braakmann-Folgmann, a researcher at the University of Leeds said.

### Record Blast

The explosive force of the massive volcanic blast off Tonga earlier this month appears to have far exceeded that of the biggest nuclear detonation ever conducted. The global network of 53 seismic, underwater acoustic and surface infrasound detectors used by the Comprehensive Nuclear-Test Ban Treaty Organization measured the low-frequency boom, which was heard as far away as Alaska, 10,000 km to the north. Those measurements show it was more powerful than the Soviet Union's 1961 Tsar Bomba.

### Saved by the Light

New research finds that placing LED lights on fishing nets brings a 95 percent reduction in the number of sharks, skates and rays accidentally snagged, and a 48 percent drop in the number of unwanted finfish accidentally caught. And writing in “Current Biology,” researchers say the lights do not bring a drop in the number of fish the fishing crews try to catch. Gill nets are one of the most commonly used types of fishing gear in the world, but they often catch creatures not targeted by the fishers. This kills untold numbers of unwanted creatures, which are dumped back into the sea.

### Earthquakes

Haiti was rocked by a magnitude 5.3 temblor that killed two people and sent residents rushing into the streets. • A strong jolt in southern Japan’s Kyushu island left 13 people injured. • Earth movements were also felt in the far southern Philippines, Maui, southwestern Australia, southern Zimbabwe, northwestern Iran, northern Israel and northwestern Spain.

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