

Earthweek: Diary of a Changing World

Week ending Friday, December 27, 2019

By Steve Newman

Warming Disruption

Fish, crustacean and plankton species are being affected by warming seas, which U.S. researchers warn could lead to major impacts on commercial fisheries.

“The changes we are observing ripple throughout local and global economies all the way to our dinner plates,” said marine ecologist Malin Pinsky of Rutgers University-New Brunswick.

He says warm-water species are rapidly increasing under the influence of global warming as cold-water species decrease. The results of the largest-yet study of how rising water temperatures are impacting ocean species was published in the journal *Nature Climate Change*.

Earthquakes

Bogotá and other parts of central and southwestern Colombia were rocked by two strong temblors, centered 100 miles to the south of the capital.

- Earth movements were also felt in Southern California’s high desert region, northern Vancouver Island, western Iran and South Asia’s Hindu Kush region.

Fiber Detection

Seismologists say they can use the vast networks of unused fiber-optic cables that have gone dark since the dot-com boom of the 1990s to efficiently detect and monitor earthquakes.

Using a stretch of unused fiber near Sacramento, California, over a seven-month period, scientists from the Lawrence Berkeley National Laboratory detected earthquakes up to 4,800 miles away, ranging in magnitudes between 4.4 and 8.1.

This was made possible by measuring how the seismic activity strains the underground cables and how that causes some of the light they carry to be disturbed.

Other scientists have used fiber-optic cables stationed at the bottom of the North Sea to track both earthquakes and ocean waves.

Snowless Moscow

Residents from the Russian capital to east of the Ural Mountains prepared for the new year without the typical snow and frigid temperatures of the season.

Bears have been brought out of hibernation as rhododendrons, snowdrops and crocuses began to bud in some areas because of the false spring.

Popular ski resorts have been forced to close because the weather is too warm even to create artificial snow.

Russia’s Hydrometeorological Research Center predicts that 2019 is likely to go down as the warmest year since records began a century and a half ago.

African Swarms

Somalia’s worst locust swarms in 25 years have devoured vast tracts of crops and grazing land across the country and parts of neighboring Ethiopia.

Farmers faced with starvation have urged their governments to request aid from the international community to avert the looming famine.

The swarms were made worse by unseasonably heavy rainfall and the resulting floods that have killed hundreds of people across the Horn of Africa in recent months.

The U.N. Food and Agriculture Organization says the infestations have become far worse than its experts feared earlier this year.



Desert locust swarms can leave trails of devoured crops hundreds of miles long. Photo: Yasuyoshi Chiba/U.N. Food and Agriculture Organization

Radioactive Flush

Japan plans to release some of the approximately 1 million tons of contaminated water that have been accumulating in tanks since the 2011 meltdowns at its Fukushima nuclear power plant.

The company in charge of the facility says it will run out of storage space in 2022, prompting some to believe it may begin flushing the water into the Pacific after next summer’s Tokyo Olympics.

Japanese officials say the water may be discharged from the tanks by first diluting it with seawater before sending it into the ocean, and by vaporizing the water into the air.

The move is likely to face continued strong opposition from fishermen, farmers and neighboring countries.

Holiday Typhoon

The central Philippines was pummeled over Christmas by powerful Typhoon Phanfone, which killed at least 20 people.

Phanfone’s high winds wrecked homes, toppled trees and blacked out cities across Samar Island.

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