

Earthweek: Diary of a Changing World

Week ending Friday, December 2, 2022

By Steve Newman

Endangered Bats

The United States declared that the northern long-eared bat is endangered because the species has been driven to the brink of extinction by white-nose syndrome, a fungal disease.

“White-nose syndrome is decimating cave-dwelling bat species like the northern long-eared bat at unprecedented rates,” said U.S. Fish and Wildlife Service Director Martha Williams.

The disease was first identified in Peru in recent weeks and has since infected 12 different types of bats, killing millions.

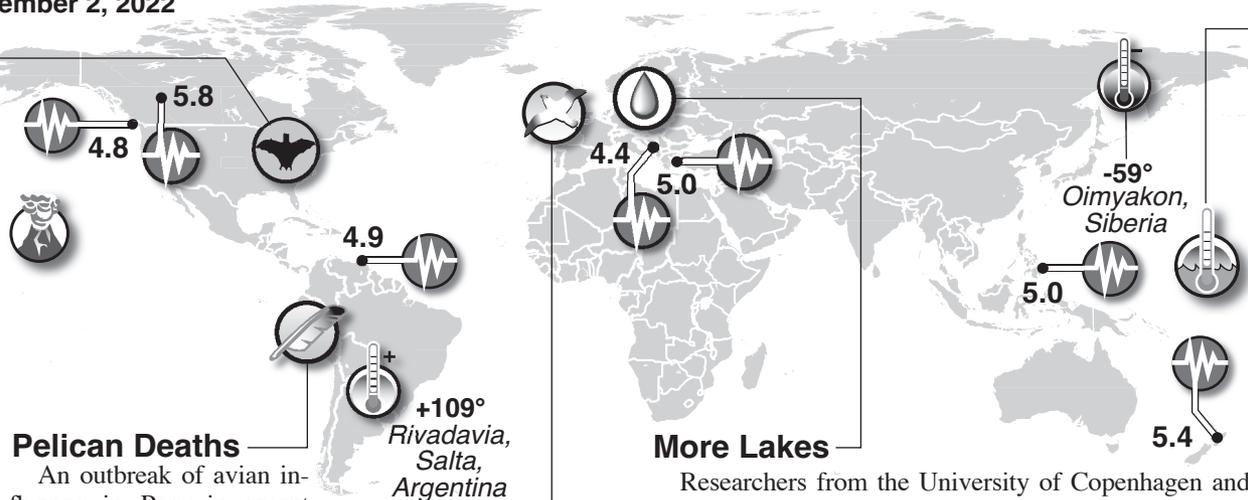
It attacks bats’ wings, muzzles and ears when they hibernate in caves and mines.

Spinning wind turbines are also killing large numbers of the species.

Earthquakes

Canada’s Alberta province was soundly jolted by its strongest earthquake and aftershocks on record.

• Earth movements were also felt in western Vancouver Island, the Philippine island of Mindanao, Bosnia and Herzegovina, central Greece, Trinidad and New Zealand’s North Island.



Pelican Deaths

An outbreak of avian influenza in Peru in recent weeks has resulted in the deaths of more than 5,500 pelicans.

They join more than 7,500 other birds in Peru that have been killed by the H5N1 avian influenza strain, according to biologists.

H5N1 can spread extremely quickly between birds through their droppings and saliva.

There have also been large outbreaks of bird flu in Asia, Europe and the United States, forcing the culling of millions of poultry during the past two years.

But globally, large numbers of wild birds have also been killed by the virus this year, with sea birds being especially hard hit.

Key Birds

A new study finds that some of the most unusual birds are among the most threatened with extinction.

Researchers at Imperial College London say that those species have important and specialized roles in the environment, such as seed dispersal, pollination and hunting.

“If we do not take action to protect threatened species and avert extinctions, the functioning of ecosystems will be dramatically disrupted,” said Jarome Ali.

Such specialized species may be less able to adapt to a changing environment, including human impacts on their habitats.

More Lakes

Researchers from the University of Copenhagen and other institutions say there was a particular increase between 1984 and 2019 in the number of the world’s small lakes, which emit large amounts of greenhouse gas.

More than half of increased global lake surface area was due to the creation of reservoirs, or artificial lakes. The other half has been primarily created by melting glaciers or thawing permafrost due to global heating.

Bacteria and fungi feeding on dead plants and animals at the bottom of a lake can emit vast amounts of CO₂, methane, nitrous oxide and other gases. Some of these gases end up in the atmosphere as the lakes act like greenhouse gas factories.



Residents near Mauna Loa were urged to prepare for ash and possible plumes of toxic volcanic smog, or vog. Photo: USGS/HVO

La Niña Lingers

The very rare “triple-dip” La Niña ocean cooling in the Pacific is now expected to linger into February or even March, according to the U.N. weather agency.

For three consecutive years, the phenomenon has brought disastrous flooding to southeastern Australia as well as various other weather disasters around the world.

“The first ‘triple-dip’ La Niña of the 21st century will continue to affect temperature and precipitation patterns and exacerbate drought and flooding in different parts of the world,” the World Meteorological Organization said in a statement.

Hawaiian Eruptions

The world’s largest active volcano, Hawaii’s Mauna Loa, awakened from nearly 40 years of slumber, spewing lava as well as plumes of ash and vapor.

It joins Kilauea in erupting across the Big Island. But Mauna Loa is much taller and steeper than Kilauea, meaning it can produce faster lava flows.

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