

Earthweek: Diary of a Changing World

Week ending Friday, December 20, 2019

By Steve Newman

Salmon Bonanza

Fishermen in Canada's Northwest Territories say they have caught more Arctic salmon this year than in all of the previous 20 years combined.

The fish also emerged earlier than normal, mainly because of the virtual lack of ice in the Mackenzie River during the Arctic summer.

Fisheries and Oceans Canada says 2,400 salmon catches were submitted to the agency, compared to only 100 last year.

Agency biologist Karen Dunmall points to a warming climate and disappearing ice for the salmon bounty.

Earthquakes

At least 11 people perished as a strong temblor caused buildings to collapse on the southern Philippine island of Mindanao. It was the fifth to strike the region since October.

- Buildings were cracked north of Mumbai as a tremor jolted far western India.

- Earth movements were also felt in China's Sichuan province, Japan's northern Honshu Island and near Reykjavik, Iceland.

Rodeo Ants

University of Texas at Austin researchers have come up with a classic cowboy term to describe two new species of ants that ride on the backs of larger ants.

Entomologists Alex Wild and Jennifer Schlauch say they have so far found only a single female "rodeo ant" from each of the two species.

The smaller freeloaders fool the workers of the larger queen ants they ride into looking after them and providing free child care.

"She's probably dropping her own eggs into the brood pile, where the host workers are treating them as their own," Wild told *New Scientist*. "She's a parasite on the food and labor of the host colony."

Other experts say they believe the unabashed deadbeats avoid detection by covering themselves with chemicals secreted by the larger queen ant.

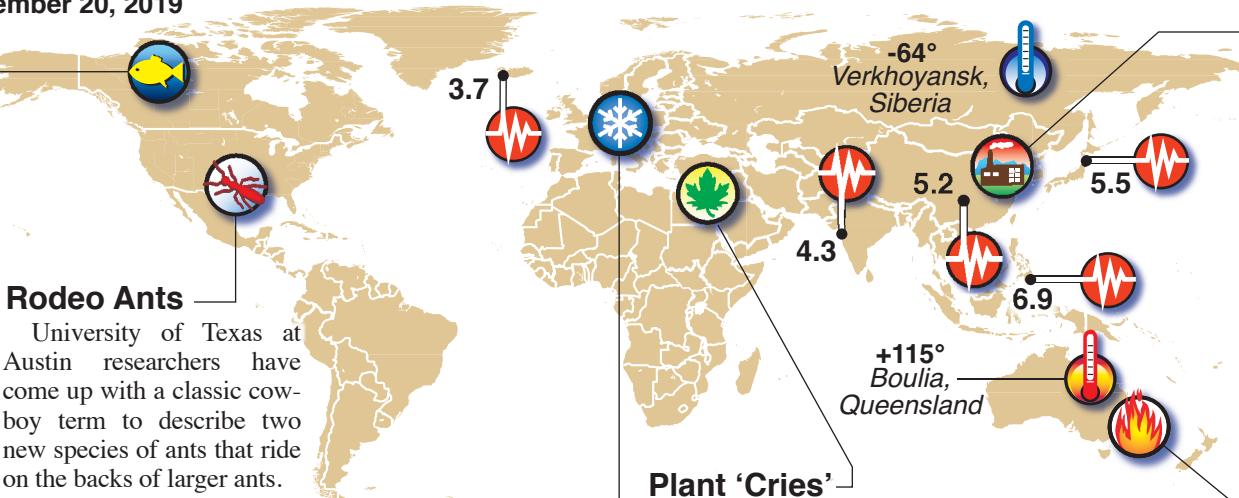
Darker Christmas

The prospects of a white Christmas in the decades ahead are becoming bleak.

Berlin-based Nestpick released the results of a study it sponsored that looked at earlier research to see how our warming climate may affect future holiday cheer.

Almost every city in the White Christmas Index is likely to see a reduction in average December snow days by 2050. Only Chicago, Beijing and Belfast may see a slight increase in the number of snow days.

But Helsinki may have as few as two days of December snowfall by 2050, compared to the recent average of 13 days.



Plant 'Cries'

Scientists have for the first time heard plants making sounds of "distress" when they are thirsty or harmed.

Itzhak Khait and colleagues at Israel's Tel Aviv University say they found tomato and tobacco plants emit ultrasonic sounds between 20 and 100 kilohertz when deprived of water or when their stems are cut.

The unpublished research suggests those sounds could affect the behavior of insects and nearby plants.

The team believes their findings could inspire a new field of "precision agriculture" where farmers "listen" for when to water their crops.



Australian bushfires are ravaging such wildlife as koalas and fruit bats, known as flying foxes. Image: NSW Rural Fire Service

Future of Coal

The measurable dip in the worldwide use of the world's most polluting fossil fuel during 2019 is set to end in the years ahead due to growing demand for electricity in developing countries.

The annual report on the use of coal just released by the International Energy Agency points to projected increases by India, China and Southeast Asia for offsetting all the reductions in coal use elsewhere around the world.

Heat and Fire

As Australia experienced its hottest days on record, health experts say they have no idea what the long-term effects of this season's toxic air quality from unprecedented bushfires will have on the human population.

Hundreds of people have poured into clinics, suffering from asthma and other breathing problems.

Air pollution levels in metropolitan Sydney have soared to 11 times higher than the level considered "hazardous" due to the choking pall of smoke blanketing much of New South Wales.

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