

Climate

Glacier threatens valley

Canada's last intact 'ice shelf' collapses

By Seth Borenstein

CANADA, Aug 11, (AP): Much of Canada's remaining intact ice shelf has broken apart into hulking iceberg islands thanks to a hot summer and global warming, scientists said.

Canada's 4,000-year-old Milne Ice Shelf on the northwestern edge of Ellesmere Island had been the country's last intact ice shelf until the end of July when ice analyst Adrienne White of the Canadian Ice Service noticed that satellite photos showed that about 43% of it had broken off. She said it happened around July 30 or 31.

Two giant icebergs formed along with lots of smaller ones, and they have already started drifting away, White said. The biggest is nearly the size of Manhattan - 21 square miles (55 square kilometers) and 7 miles long (11.5 kilometers). They are 230 to 260 feet (70 to 80 meters) thick.



Copland

"This is a huge, huge block of ice," White said. "If one of these is moving toward an oil rig, there's nothing you can really do aside from move your oil rig."

The 72-square mile (187 square kilometer) undulating white ice shelf of ridges and troughs dotted with blue melt-water had been larger than the District of Columbia but now is down to 41 square miles (106 square kilometers).

Temperatures from May to early August in the region have been 9 degrees (5°C) warmer than the 1980 to 2010 average, University of Ottawa glaciology professor Luke Copland said. This is on top of an Arctic that already had been warming much faster than the rest of globe, with this region warming even faster.

Hotter

"Without a doubt, it's climate change," Copland said, noting the ice shelf is melting from both hotter air above and warmer water below.

"The Milne was very special," he added. "It's an amazingly pretty location."

Ice shelves are hundreds to thousands of years old, thicker than long-term sea ice, but not as big and old as glaciers, Copland said.

Canada used to have a large continuous ice shelf across the northern coast of Ellesmere Island in the Canadian territory of Nunavut, but it has been breaking apart over the last decades because of man-made global warming, White said. By 2005 it was down to six remaining ice shelves but "the Milne was really the last complete ice shelf," she said.

"There aren't very many ice shelves around the Arctic anymore," Copland said. "It seems we've lost pretty much all of them from northern Greenland and the Russian Arctic. There may be a few in a few protected fjords."



Lake Tahoe's fluctuating clarity got worse last year during an especially cold and wet winter as sedimentation, algae growth and a tiny invasive shrimp continued to pose restoration challenges for the famed clear water of the mountain lake straddling the California-Nevada line.

The clarity decline came a year after lake had showed clarity improvement from its worst level in a half-century as climate change continues to drive long-term trends, with rising air temperatures and less precipitation falling as snow, according to the UC Davis Tahoe Environmental Research Center.

Visible

A white, dinner plate-sized disc used to measure clarity was visible at an average depth of 62.7 feet (19 meters) in 2019. That's down from 70.9 feet (21.6 meters) measured in 2018.

While the average annual clarity is better than it was in previous decades, it's still short of the current restoration target of 97.4 feet (30 meters) set by state and federal regulators, the research center said in recently release of its annual "State of the Lake Report".

Scientists hope efforts to combat threats to the lake's clarity posed by development and climate change will eventually return Lake Tahoe to its historical clear depth of 100 feet (30 meters).

The lake's cobalt waters exceeded that at one point in 2019, reaching a maximum depth of 112 feet (34 m) on Feb 19. Last year's worst reading of 36.1 feet (11 m) was recorded on May 8, coinciding with an algae bloom.

The scientists said the data reinforces the need to continue to expand efforts to remove the invasive shrimp. Introduced to the lake in the 1960s, Mysids shrimp are driving out native zooplankton that keep the water clear by consuming algae and other small particles.

Last year's precipitation was a foot (30 centimeters), more than the average of the past 110 years. Average air temperature in February 2019 was several degrees lower than the long-term average - and it was the coldest February since 1956.

The average surface water temperature of 68 degrees (20°C) in 2019 was down from 72 degrees (22°C) in 2017.

But the surface water temperature in Lake Tahoe has generally been on the rise since at least 1968, when regular measurements began.

Warmer temperatures have already reduced the percentage of annual precipitation that comes in the form of snow from about 50% 100 years ago to around 30% today, which means warmer water flows into the lake.

The lake's clarity was at its best when levels were first recorded in 1968, with an average depth of 102.4 feet (31.2 meters). The disc typically was visible at depths of 85 feet (30 meters) or deeper through the 1970s.

The lake's clarity levels registered their worst performance during a severe drought in the late 1990s.



Experts were closely monitoring a Mont Blanc glacier, a day after they evacuated 75 tourists and residents amid fears the glacier could soon break apart and crash into a popular Italian Alpine valley.

Valerio Segor, a glacier expert in Valle d'Aosta, a region in northwestern Italy, told reporters on Friday that the next 72 hours were critical for the Planincieux Glacier, which lies under a massif on the Italian side of Mont Blanc, the highest mountain in the Alps.

Those forced to evacuate came from homes and holiday lodgings in the Ferret Valley in the shadow of the glacier. Tourists on Friday were barred from entering the scenic valley.

The glacier's size has been likened to that of a soccer field under a 80-meter (265-foot) high mass of ice. Abrupt shifts in temperature from hot to cold to hot again are being blamed for the precarious state of the glacier, which Segor says has a stream of water running beneath it.

The glacier's state has been monitored since 2013. Last year saw similar concerns, but the glacier held on to its grip on the mountain at 2,600-2,800 meters (8,500-9,200 feet) of altitude.

Lately, Planincieux has been creeping downward at the rate of about 80-100 centimeters (32-40 inches) each day, Segor said.

The Corriere della Sera newspaper quoted glacier expert Fabrizio Troilo as saying there is "the danger it could give way in an instant."

Corriere said an Alpine refuge was still open for climbers who come from the French side of Mont Blanc, which is known in Italy as Monte Bianco.



An air tanker drops fire retardant slurry on the ridge directly above No Name after the Grizzly Creek Fire broke out inside Glenwood Canyon just east of Glenwood Springs, Colorado, Aug 10. (AP)

Technology

Will virtual care glow fade?

Telemedicine shines during pandemic

By Tom Murphy

Racked with anxiety, Lauren Shell needed to talk to her cancer doctor.

But she lives at least an hour away and it was the middle of her workday. It was also the middle of a pandemic. Enter telemedicine.

The 34-year-old Leominster, Massachusetts, resident arranged a quick video visit through the app Zoom in May with her doctor in Boston. He reassured her that he was confident in their treatment plan, and the chances of her breast cancer returning were low.

"It was really great to be able to talk to him about what I was feeling," she said. She felt comforted afterward "knowing that I wasn't alone."

This is how doctors and health care researchers envision telemedicine evolving after the COVID-19 pandemic fades. They see the practice - which has grown explosively this year - sticking around to replace many in-person visits and become a greater part of routine care.

Contact

Imagine more contact with doctors or nurses but fewer trips to the office. Patients might use telemedicine more for check-ins like Shell did or to talk to a doctor after a procedure or get a second opinion. There's also secure messaging for quick questions and more remote monitoring of chronic health problems like diabetes.

"Your care is going to get better," said Dr Thomas Lee, a Harvard professor and care delivery expert with the health care consultant Press Ganey.

But to keep some of telemedicine's growth, thorny questions about insurance coverage and doctor reimbursement need to be resolved.

Plus, patients and doctors who were forced to try virtual care during the pandemic need to keep using it.

Doctors scrambled to shift to telemedicine when the coronavirus hit the US earlier this year. Care providers like the Cleveland Clinic went from averaging 5,000 telemedicine visits a month before the pandemic to 200,000 visits just in April.

Many insurers waived fees to encourage its use. The federal government relaxed restrictions on telemedicine's use in Medicare, the federal coverage program for people age 65 and over. The government also started temporarily allowing visits over apps that didn't meet patient privacy standards.

That helped Dr Jay Meizlish connect with his mostly older heart patients. At first, they struggled. He often had to hold cards up to his camera, telling patients to mute their microphone or turn up their volume.

Then he found what worked - he switched to the more familiar and easier to use FaceTime.

"That's how they talk to their grandchildren," the Yale New Haven Hospital doctor said.

"We have learned the power of this, but whether it continues is not in our hands," he said.

Experts expect some telemedicine restrictions will return, including fees

MTA asks Apple's help to solve iPhone mask issues by riders

NEW YORK, Aug 11, (AP): New York's mass transit agency wants Apple to come up with a better way for iPhone users to unlock their phones without taking off their masks, as it seeks to guard against the spread of the coronavirus in buses and subways.

In a letter to CEO Tim Cook obtained by The Associated Press, Metropolitan Transportation Authority Chairman Patrick Foye said riders have been seen removing their masks to unlock their phones using face-recognition technology, despite a recent update by Apple that simplifies the unlock process for people wearing masks.

Previously, an iPhone user wearing a mask would have to wait a few seconds as face recognition software tried to identify them before they eventually could enter a passcode. In response to the pandemic, Apple's iOS 13.5, released in May, automatically presents the passcode field after a user swipes up from the bottom of the lock screen. Also, Apple Pay Express Transit, introduced last year, allows riders on some bus and subway lines to pay with their iPhone or Apple Watch without having to wake the device.

"We understand Apple is working to address the issue and know that Apple has a range of technologies at its disposal as a global leader among tech companies," Foye

wrote in the letter sent Sunday. "We urge Apple to accelerate the deployment of new technologies and solutions that further protect customers in the era of COVID-19."

Foye added that the MTA would be willing to collaborate with Apple on messaging to make sure users know about the recent iPhone modification.

"There's nothing more important to us than the health and safety of our customers," Apple said in an emailed statement that noted the upgrades it has already made. "We are fully committed to continuing to work with the MTA to support their efforts to prevent the spread of COVID-19."

Bus and subway use in New York and other cities plunged during the height of the pandemic. The MTA lost more than 90% of its subway ridership, which along with reduced revenue at its other properties has created a fiscal hole that will take years to fill, officials have said. Ridership has slowly increased but still lags far behind pre-pandemic levels.

In addition to an aggressive cleaning program that has included the unprecedented step of shutting down the subway overnight, the MTA requires all riders to wear masks and socially distance. The authority has said in recent weeks that more than 90% are wearing some form of face covering. (AP)

person doctor visits that don't involve hospital stays.

Shell, the cancer patient, said she never would have been able to visit her doctor in person that day. She teaches veterinary science at a vocational high school. That makes it hard to break away for an in-person doctor's appointment.

She wound up using telemedicine a few times because of the pandemic. She hopes the practice continues.

"I feel strongly that increased safety, convenience, and accessibility are all reasons to continue," she said.

Researchers don't expect telemedicine to replace all in-person care. Millions of people don't have access to the technology or a reliable internet connection. Some people may still be reluctant to use it.

And not all ailments can be treated remotely.

Alexandra Thomas tried it last spring when she woke up with vertigo that made her so dizzy she could barely walk. The nurse practitioner handling her virtual visit wanted Thomas to see someone in person. That meant the 24-year-old Charlottesville, Virginia, resident had to spend another \$30 on a co-payment and wait three more hours at a clinic before finally getting treated.

Telemedicine, Thomas said, is "a good idea in theory, but maybe not so much in practice".



An air tanker drops fire retardant slurry on the ridge directly above No Name after the Grizzly Creek Fire broke out inside Glenwood Canyon just east of Glenwood Springs, Colo, Aug 10. (AP)

Discovery

3,000-yr-old hoard found: An amateur treasure-hunter has uncovered one of the most significant Bronze Age hoards ever found in Scotland, including jewelry and a 3,000-year-old sword, authorities said Monday.

Metal detectorist Mariusz Stepien said he was "shaking with happiness" when he made the discovery in June, in a field near the village of Peebles, about 22 miles (36 kilometers) south of Edinburgh.

"I thought I've never seen anything like this before and felt from the very beginning that this might be something spectacular and I've just discovered a big part of Scottish history," he said.

Stepien and his friends contacted the Scottish government's Treasure Trove unit and camped in the field for 22 days as archaeologists uncovered the assemblage of artifacts. These included a complete horse harness, buckles, rings, ornaments, a sword still in its scabbard and axle caps from a chariot.

They, and the dirt around them, are now at the National Museums Collection Center in Edinburgh.

Emily Freeman, head of the Treasure Trove Unit, said it was a "nationally significant find." It is only the second Bronze Age hoard ever excavated in Scotland.

"It was an amazing opportunity for us to not only recover bronze artifacts, but organic material as well," she said. "There is still a lot of work to be done to assess the artifacts and understand why they were deposited."



Indonesia volcano erupts: Indonesia's rumbling Mount Sinabung erupted Monday, sending a column of volcanic materials as high as 5,000 meters (16,400 feet) into the sky and depositing ash on villages.

Falling grit and ash accumulated up to 5 centimeters (2 inches) in already abandoned villages on the volcano's slopes, said Armen Putra, an official at the Sinabung monitoring post on Sumatra Island.

Farther afield in Berastagi, a tourist destination city in North Sumatra province, about 20 kilometers (12.4 miles) from the crater, motorists switched on headlights in daylight to see through the ash.

Videos and photos on social media showed people wore masks while outdoors.

There were no fatalities or injuries from the eruption, Indonesia's Volcanology and Geological Hazard Mitigation Center said.

Villagers are advised to stay 5 kilometers (3.1 miles) from the crater's mouth and should be aware of the peril of lava, the agency said. Air travel was not being impacted so far by the ash, the Transport Ministry said. (AP)



Volunteers rescue dolphins: Nearly 50 dolphins were stranded on a beach on Cape Cod, Massachusetts, over the weekend and needed to be rescued by dozens of volunteers, officials said. Massachusetts governor is Charlie Baker. The International Fund for Animal

Welfare said some 45 dolphins were found stranded by harbor officials in Wellfleet on Sunday morning.

Stacey Hedman, a manager with the Yarmouth-based group, said many of the dolphins were already sunburned and overheating by the time the organization's Marine Mammal Rescue and Research team responded to the stretch of beach known locally as The Gut. International Fund for Animal Welfare founder is Brian Davies.



Davies



Baker

She told The Cape Cod Times it appeared the dolphins got stranded sometime overnight as the tides changed.

"It was a sad scene to see them out of the water, unable to swim," Hedman told newspaper.

She said the team of roughly 50 volunteers used beach-ready stretchers to carry nearly a dozen of the dolphins to safety. They also gave the marine mammals IV fluids and vitamins, and deployed boats to guide them back to deeper waters. (AP)