

natural-language-learning researcher at Brown University in Providence, Rhode Island. As well as comparing BLOOM with other models in its abilities to, for example, answer questions, researchers want to look at more diverse metrics, such as how strongly it makes certain stereotyped associations or how biased its abilities are towards a specific language. Pavlick hopes that because the model has been trained to be multilingual, it might have a deeper understanding of language, which could help in its ability to generalize to a diversity of tasks.

### Free to use

The fully trained BLOOM model will be available to download for researchers who want to experiment with it or train it on new data for specific applications. But downloading

and running it require significant hardware capacity. Because that's available to so few research teams, BigScience will also publish smaller, less-hardware-intensive versions and create a distributed system that allows laboratories to share the model across their servers. In addition, Hugging Face has released a web application that will enable anyone to query BLOOM without downloading it.

BLOOM could find uses in research outside AI. Francesco de Toni, a linguist at the University of Western Australia in Perth, jointly leads a BigScience working group that is looking at using models to extract information from collections of historical texts that are too large to be gone through by hand. Models can, for example, extract all the names or goods mentioned in a collection of letters by Renaissance merchants.

agreeing, let alone implementing, a plan to halt and reverse biodiversity loss by 2030," he says.

With the date now set, Anne Larigauderie, executive secretary of the Intergovernmental Platform on Biodiversity and Ecosystem Services, says key to the success of the global biodiversity agreement will be to focus on the direct and indirect drivers of nature loss, and the behaviours that underpin them. "Policy should be led by science, action [should be] adequately resourced and change should be transformative," she adds.

The decision to move the meeting came after discussions by the representatives of the decision-making body of the COP. China and Canada then thrashed out the details of how the move would work. The CBD has provisions that if a host country is unable to hold a COP, the meeting changes to the home of the convention's secretariat, Montreal.

Announcing the decision, Elizabeth Mrema, executive secretary of the CBD, said in a statement, "I want to thank the government of China for their flexibility and continued commitment to advancing our path towards an ambitious post-2020 global biodiversity framework."

In a statement, Runqiu said, "China would like to emphasize its continued strong commitment, as COP president, to ensure the success of the second part of COP15, including the adoption of an effective post-2020 global biodiversity framework, and to promote its delivery throughout its presidency."

China also agreed to pay for ministers from the lowest-income countries and some small island states to travel to Montreal to participate in the meeting.

### Work ahead

Paul Matiku, an environmental scientist and head of Nature Kenya, a conservation organization in Nairobi, says that the move "is a welcome decision" after "the world lost patience after a series of postponements".

But he says that wealthy nations need to reach deeper into their pockets to help low- and middle-income countries – which are home to much of the world's biodiversity – to implement the deal. Disputes over funding already threaten to stall the agreement.

"The extent to which the CBD is implemented will depend on the availability of predictable, adequate financial flows from developed nations to developing-country parties," says Matiku.

Further talks were held in Nairobi from 21 to 26 June. Deutz hopes that countries can find common ground on key issues such as financing before heading to Montreal. Having a firm date set for COP15 will help to push negotiations forward, he says. "Negotiators only start to compromise when they are up against a deadline," he adds. "Now they have one."

# CRUCIAL BIODIVERSITY SUMMIT WILL GO AHEAD IN CANADA, NOT CHINA

## After pandemic delays, researchers say countries must agree on ambitious targets.

By **Natasha Gilbert**

Scientists are relieved that a pivotal summit to finalize a new global agreement to protect the environment will go ahead this year, after two years of delays because of the COVID-19 pandemic. But they say the hard work of negotiating an ambitious deal lies ahead.

The United Nations Convention on Biological Diversity (CBD) announced on 21 June that the meeting will move from Kunming in China to Montreal, Canada. The second part Fifteenth meeting of the Conference of the Parties (COP15) will bring together representatives from almost 200 CBD member states from 5 to 17 December. China will continue as president of COP15, and Huang Runqiu, China's minister of ecology and environment, will remain the chair.

Conservation and biodiversity scientists were becoming increasingly concerned that China's strict 'zero COVID' strategy, which uses measures such as lockdowns to quash all SARS-CoV-2 infections, would force the host nation to delay the meeting again. Researchers warned that another setback to the agreement, which aims to halt the alarming rate of species extinctions and to protect vulnerable ecosystems, would be disastrous for countries' abilities to meet the proposed, ambitious targets

to protect biodiversity over the next decade.

"We are relieved and thankful that we have a firm date for these critically important biodiversity negotiations within this calendar year," says Andrew Deutz, a specialist in biodiversity law and finance at the Nature Conservancy, a conservation group in Arlington, Virginia. "The global community is already behind in



**Deforestation in places such as the Amazon contributes to biodiversity loss.**