

## Collapse of Canadian cod fishery avoidable

Ken Ferguson

Enormous shoals of northern Atlantic cod (*Gadus morhua*) once cruised the waters off eastern Canada, but stocks plummeted following the advent of industrial-scale fishing in the mid-20th century. Now, a new analysis of long-term catch data suggests that the failure of this iconic fishery could have been averted (*ICES J Mar Sci* 2021; <https://doi.org/10.1093/icesjms/fsab153>).

A recently developed stock assessment approach known as CMSY was applied to 500 years of catch data for Newfoundland and Labrador, enabling the researchers to model cod population trajectories since the 17th century. For most of that time, annual harvest remained below 200,000 tons, well

within sustainable levels, but skyrocketed in the early 1960s with the introduction of commercial trawlers. After peaking at 810,000 tons in 1968, by the early 1990s total cod catch had fallen to ~120,000 tons, triggering implementation of a federal moratorium on the fishery in 1992.

Based on trends revealed by the model, the authors contend that the collapse of the Maritimes cod fishery was entirely preventable. “If Canadian authorities had allowed for the rebuilding of the cod stock in the 1980s, annual catches of ~200,000 tons could have been sustained”, explains Rebecca Schijns, a research assistant at Sea Around Us (Vancouver, Canada) and primary author of the paper. “Instead, a newly developed and heavily subsidized domestic trawler fleet was created.” Moreover, concerns raised by small-scale inshore fishers about rapidly dwindling cod stocks went unheeded by fisheries officials.

Despite the 30-year moratorium, cod biomass in Atlantic Canada remains at ~2% of historical levels, an indication that current fishing pressure is still too high for populations to adequately rebuild. Yet catch quotas continue to increase, underscoring the challenge of shifting management focus toward prioritizing long-term benefits over short-term interests.

Wider adoption of basic stock-assessment techniques like the CMSY, which requires little more than a time-series of catch data, could help other fisheries avoid the same fate as the Canadian cod fishery. “Researchers and fisheries managers can use relatively simple tools like catch reconstruction and CMSY assessments to incorporate past knowledge of a fishery”, concludes Schijns. “Overall, this may improve understanding of the total impact fisheries have on marine ecosystems, and how to manage and rebuild populations for a long-term future.” ■

## Drive to stop DRC lifting logging moratorium

Adrian Burton

The Democratic Republic of the Congo (DRC) appears poised to lift a moratorium on new logging concessions in the Congo Basin rainforest. The move has alarmed environmentalists, trade organizations, and international donor agencies alike, and provoked the NGO Rainforest Rescue to launch a petition, alongside Greenpeace Africa and Rainforest Foundation UK, asking the European Commission and various ministers of France, Germany, the Netherlands, Norway, South Korea, and the UK to try to stop what they describe as “a grave threat”.

The moratorium came into force in 2002, but a 10-point action plan proposed in July by DRC Deputy Prime Minister and Minister of Environment and Sustainable Development Eve Bazaiba, and adopted by the Council of Ministers, clearly indicates the moratorium could now be lifted, threatening an area the size of France.

“This could be a disaster for the climate, biodiversity, the rule of law, and the



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Forests in the Democratic Republic of the Congo could be facing “a grave threat”.

rights and livelihoods of people living in the rainforest, and even increase the risk of future outbreaks of zoonotic disease”, warns Rainforest Rescue campaigner Mathias Rittgerott (Hamburg, Germany).

The proposed lifting of the ban has raised eyebrows because it comes at a time when the DRC is receiving hundreds of millions of dollars to protect its forests via donor organizations, including the Central African Forest Initiative (CAFI), a program through which participating countries invest in deforestation mitigation solutions.

The new petition is not the first attempt at raising broader awareness about the decision; over the summer,

several NGOs lobbied countries donating to CAFI and other aid programs to put pressure on the DRC to desist in issuing new logging concessions.

The action plan has also led to confusion in the logging industry, as it indicates that the end to the moratorium will be accompanied by a seemingly incongruous ban on all wood exports, causing legitimate logging companies to worry about their future and their ability to honor existing contracts.

“I think that message was sent in a context that no longer exists, because in fact exports are continuing”, informs Benoit Jobbé-Duval, Director General of the International Tropical Timber Technical Association (Nogent-sur-Marne, France), a trade organization representing private companies. “[But the end of the moratorium] must be accompanied by measures to guarantee the legal exploitation of forests and sustainable management of resources. We understand that the timber industry in the DRC is essential to the country’s development, and a very large number of families depend on it. But this exploitation must certainly be better controlled and illegality combated.” ■