With Boats Stuck in Harbor Because of COVID-19, Will Fish Bounce Back?

The pandemic has left many unable to leave harbor, creating a window for fishing grounds to recover from years of overfishing.

Menhaden fishing (NOAA)
By Tristram Korten
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The commercial fishing industry has hit rough seas. In Croatia, fishing boats bob listlessly at the docks while 80 percent of the country’s whitefish remains unsold. In France, safety rules designed to stop the spread of COVID-19, coupled with reduced demand because of unemployment and closed restaurants, have forced fleets to stay in port. Border closings prevent Greek fishermen from getting their fish to market. Satellite data and observations indicate activity is down as much as 80 percent in China and West Africa.

“The demand for fresh fish as well as the selling prices have collapsed,” the Mediterranean Advisory Council, a Rome-based industry group, announced in a March 23 report. Even where there is demand, such as for canned tuna in the U.S., travel constrains on crews, supplies and equipment keep the boats in the dock. “And some ports where the boats would offload or transship fish are simply closed to them,” Bill Gibbons-Fly, with the American Tunaboat Association said in a statement.

A global slowdown of the commercial fishing industry is bad news for anyone who makes their livelihood from the sea, and fishermen will no doubt suffer. However, for the world’s beleaguered fish populations—and the scientists trying to revive them—this unplanned fishing pause presents a research opportunity, one that could demonstrate a better, more sustainable way to manage the oceans in the post-COVID-19 era.
Fishing boats set sail to East China Sea for fishing on August 1, 2017 in Zhoushan, Zhejiang Province of China. Over 3,500 fishing boats set off from Shenjiamen fishing harbor. (Getty Images)

In the past few decades, several trends have conspired to reduce the world’s fish stocks to record-low levels. A 2019 study published in *Science* determined that climate change was diminishing fish populations in some areas by 35 percent and reducing the global catch by 4 percent. Meanwhile, overfishing has reduced stocks of large high-demand predators such as the Pacific bluefin tuna and Mediterranean Swordfish by about 90 percent compared to their pre-industrial fishing populations. According to annual United Nations Food and Agriculture Organization figures, fishing fleets stay out longer and return with fewer fish while consumption increases every year.

Many scientists have in the past called for moratoriums on certain species to allow their numbers to recover. For example, Daniel Pauly, an influential marine biologist and a professor at the
University of British Columbia, has previously advocated for a global moratorium on high-seas fishing outside a country's exclusive economic zone to allow populations to grow back. “Let's stop and let the stocks recover,” he told me before the pandemic. “It will lead to more cost-effective fishing because we won't have to search all over for fish.”

The spread of COVID-19 has forced such a stop upon the world. The question now is what effects, if any, a slowdown will have on fish populations. A slowdown that lasts a couple of months would not have much long-lasting impact. However, if demand for fish dropped because of a wider recession, operations could take longer to restart. A slowdown of at least a year would allow most fish to go through their spawning cycle—and that may be enough for some species to flourish.
“Most European fish stocks (whitefish, flatfish, herring) will nearly double their biomass within one year without fishing. So, reduction in catch caused by coronavirus will lead to an increase in fish biomass,” says Rainer Froese of the GEOMAR Helmholtz Centre for Ocean Research in Germany. Froese says this could benefit about 40 percent of the stocks currently being overfished.

“This involuntary closure of fisheries will certainly have a beneficial effect on fish stocks, and later on fisheries,” UBC's Pauly added in an email. “The same thing happened during World War I and World War II: Our wars (another disease we have) are good for the fish.”

Indeed, past catastrophes illustrate what occurs when fishing is suddenly impossible. During WWII, many European and North American fishing boats were pressed into military service as supply or patrol vessels. For the rest, mines and submarine attacks often made it too dangerous to venture out. “The war brought temporary reprieve for ocean life and allowed commercial stocks of cod, haddock and plaice to replenish after heavy fishing pressures during the interwar period,” says a 2012 paper in Environment and Society. In Europe, catch records for some fish dropped 60 to 80 percent.

After the war, though, fishermen reaped the bounty as catch records exceeding the prewar years. The fish they caught were bigger and older, a sign of a healthy population, but the gains were short-lived—and not only because fishing resumed after the fighting stopped. The war spawned technologies like sonar that were soon applied to fishing, and catch records grew through the ensuing decades.

**Where We’re Headed**
In the short time commercial fishing has slowed down because of COVID-19, fish behavior has begun to change. Pauly's colleagues in China have reported that because of the decrease in fishing boats, smaller fish are appearing on the ocean surface and predators are becoming more active. Tuna that originally followed the Kuroshio Current through the China Sea to Japanese fishing grounds appear to be stopping in the China Sea for feeding.

The majority of the enormous Chinese commercial fishing fleet has been docked for a month, according to David Kroodsma, director of research and innovation at Global Fish Watch, which monitors fishing activity via satellite. Chinese activity traditionally drops off around the Chinese New Year in January or February. This year, that slowdown coincided with the pandemic lockdown and activity never restarted. “They are down by about a million fishing hours,” Kroodsma says, adding that they are starting to see a small uptick of activity.

The pandemic shutdown presents specific overfishing dangers, according to Bradley Soule, chief analyst for the non-profit Ocean Mind. Large fishing boats that can process and freeze fish are staying out at sea. Meanwhile, the patrols that monitor them have been reduced.

“We're in the process of reviewing data right now, but anecdotally it looks like there are slowdowns in more coastal fisheries,” Soule said. “However, some off-shore fisheries look like they are going very strong. Certain fleets that are designed to stay out are not coming home and they will fish more. The cops aren't watching as closely in some areas, and everyone knows this.”

Soule remains skeptical that any benefit from a fishing slowdown would have a lasting impact because it doesn't change the main
driver of overfishing: increasing human consumption. The slowdown “is a bump,” Soule said.

It's not likely that a temporary and involuntary shutdown would fundamentally alter the behavior of an entire industry. But it does offer a glimpse of what could be—and a moment's pause to consider what’s ahead.

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