

Fisheries at a Crossroads

Addressing Sustainability Challenges in U.S. Fishery Management

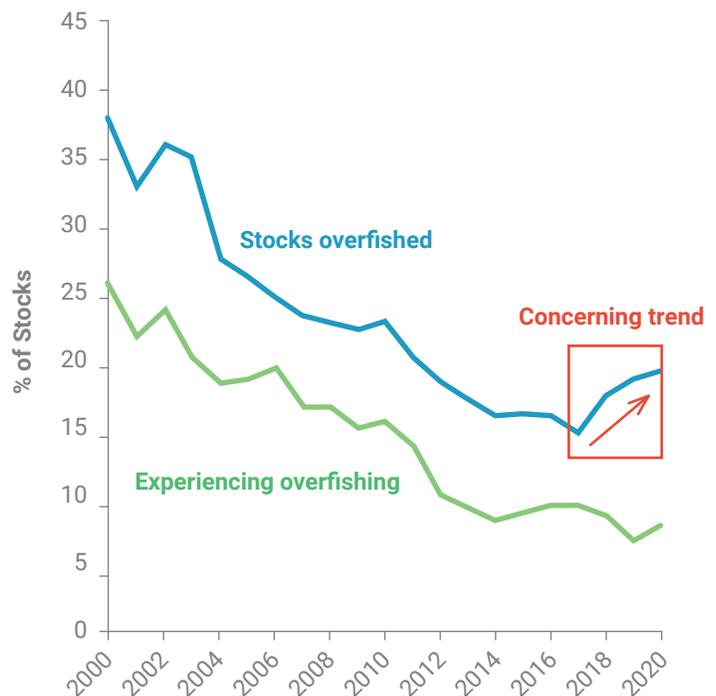


Photo credit: Patricia Chambers

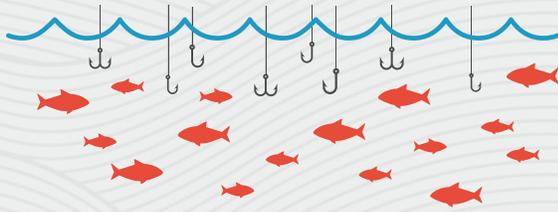
THE CHALLENGE

Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), U.S. fisheries have made substantial progress on rebuilding overfished stocks and reducing overfishing over the last two decades.¹ Yet the latest data paint a more complicated picture. Starting in 2017, there has been a **concerning increase in the number of stocks declared overfished** and in need of rebuilding. And while the number of stocks experiencing overfishing remains at historic lows, progress toward the goal of ending unsustainable fishing for good has stalled.

A lot is at stake. Ocean ecosystems, Indigenous cultures, commercial and recreational fishing, and coastal livelihoods and economies all rely on abundant fish populations. To continue making progress on sustainable U.S. fisheries, there is more work to be done to improve the rebuilding of overfished stocks and to end overfishing where it still occurs.



Data aggregated from NOAA Fisheries previous Status of Stocks Annual Reports to Congress.



Overfishing of a fish stock.

Overfishing occurs when a stock is caught at a rate that is too high to be sustainable. Overfishing is associated with many negative outcomes, including an overfished stock.



An overfished stock.

Overfished refers to the size of a stock. An overfished stock has a size that is too low and jeopardizes its ability to ensure sustainable yields in the future.

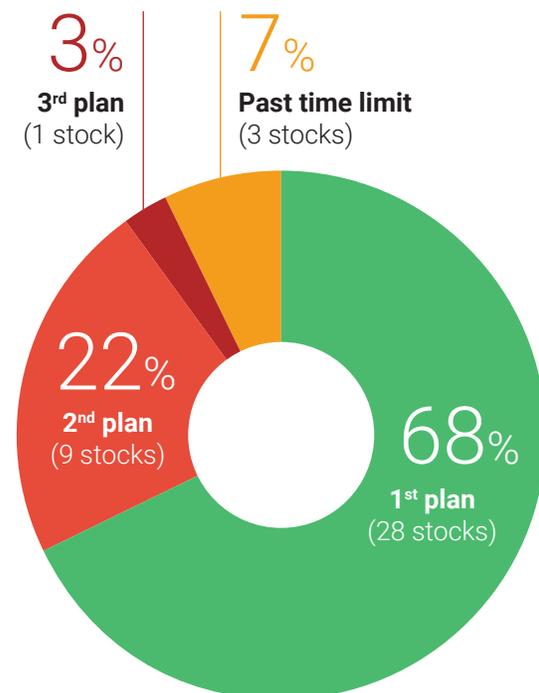
In the U.S., when a fish stock declines below a scientifically determined abundance threshold, it's declared overfished, which means managers must quickly implement a rebuilding plan to bring that stock back up to a healthy size. While these plans have rebuilt 47 stocks across the nation, rebuilding overall has not been an unqualified success.

Many rebuilding plans fail, leaving stocks at reduced abundance for longer, which means the stock is more vulnerable to collapse and fishermen have reduced opportunity to fish.

Rebuilding plans are meant to bring a fish stock back to a stock size that can sustain fishing for the long term. Yet it is very common for fish stocks in rebuilding plans to continue to decline; **an analysis of the stocks in rebuilding plans in 2020 indicated that over 60% had flat or decreasing biomass** (a measure of the amount of fish in the population). Many of those stocks with flat or decreasing biomass—from Atlantic cod to yellowtail flounder—**were still experiencing unsustainable fishing rates**. These patterns should be the exception to the rule in rebuilding, not a common occurrence.

Rebuilding Challenges

Of the 41 stocks in rebuilding plans with set time limits, many are in a second or even third plan after the first plan failed. Other stocks have a plan that has exceeded its original time limit without rebuilding.



Data source: NOAA Fisheries, 2020 Fish Stocks in Rebuilding Plans: A Trend Analysis. Note that 2 plans categorized as revised were included in the 2nd plan category for purposes of this analysis.

THE OPPORTUNITY

Improvements can and should be made to the law or to its implementation to ensure all stocks recover and are maintained at healthy levels. Healthy stocks are an important part of ocean ecosystems and provide opportunities for sustainable fishing now and in the future. They also support commercial and recreational fisheries in the U.S. that generate \$244 billion in sales and 1.74 million jobs.² In the face of climate change and other anthropogenic and environmental pressures, keeping stocks at healthy levels is critical for ensuring fishery resilience.



Case Study

Room for improvement with greater amberjack rebuilding

Greater amberjack in the Gulf of Mexico is now in its third rebuilding plan after it was determined to be overfished in 2000. The first two plans failed, the timeline to rebuild was pushed back, and overfishing has continued on the stock. Greater amberjack was initially supposed to be rebuilt by 2009, yet now the target is 2027. The most recent stock assessment indicates the stock has been experiencing overfishing in every year since at least 1985. As of 2020, the stock is experiencing overfishing and remains overfished.

2000

Stock assessment showed stock was overfished

2004

Plan extended to 10 years to **rebuild by 2012**

2008

Plan was not on track, NOAA Fisheries reduced fishing mortality by 40% to meet 2012 target

2016

Stock assessment showed new rebuilding time target will not be met

2002

7-year plan enacted to **rebuild by 2009**

2014

Stock failed to rebuild, NOAA Fisheries put new plan in place to **rebuild by 2019**

2017

New 10-year plan enacted to **rebuild by 2027**



Photo credit: Raquel Gullory

There are five main changes necessary to improve rebuilding outcomes. These will require changes to the law, new regulatory guidance, or both.

1

Act when stocks are near overfished levels to avoid the need to rebuild.

Rebuilding can be a challenge, and it makes sense to avoid having to rebuild stocks in the first place by taking steps to improve stock health before stock size falls below the overfished threshold. The MSA includes provisions that allow for a stock to be designated as “approaching an overfished condition,” but the designation is not frequently or effectively used. Improving the use of this designation could help fishery managers at Regional Fishery Management Councils and NOAA Fisheries avoid rebuilding plans by having more advance warning and taking earlier steps.

2

Shorten the time it takes for action when a stock is declared overfished.

Currently, when a stock is declared overfished, there is up to a two year delay before steps are taken to address the problem. In the meantime, councils can allow overfishing to continue on the stock. These delays put the stock in worse shape, making rebuilding harder. Ensuring that overfishing stops when a stock is declared overfished will help fish stocks and make rebuilding less painful.

3

Monitor progress and take action to keep rebuilding on track.

When stocks are rebuilding, fishery managers should do more to make sure that their recovery stays on track by monitoring progress and, if there are worrying signs that the recovery of the stock is slow or off course, taking action to improve the odds that the stock rebuilds. For example, this could mean fishery managers work with scientists to better understand the causes of decline (e.g., environmental factors, management measures not performing well), revise their sustainable limits, explore new management strategies, or look to improve habitat, prey availability or other ecosystem factors to improve rebuilding. This will help keep rebuilding from lagging longer than planned, which just extends the sacrifices associated with rebuilding.

4

Increase transparency and accountability.

NOAA Fisheries reports on how many stocks are overfished, experiencing overfishing, or in a rebuilding plan – but does not consistently report on the performance of stocks in rebuilding plans, or the number of plans they've had. More consistent reporting about the realities of rebuilding will help managers and decision-makers better understand the challenges ahead.

5

If the rebuilding plan fails, make the next plan better.

Repeat failures of plans increase the risk of stock collapse and leave fishermen with constrained catch levels for longer. If a plan fails, the next plan must have a higher likelihood for success. Successful rebuilding is the only way to bring back healthy stocks, increase their resilience to climate change, and allow increased access for fishermen.

More than a decade of overfishing in New England cod

Atlantic cod are a good example of why changes are needed to improve rebuilding. Cod are an iconic fish along the northeast U.S. coast; coastal Indigenous people have fished cod since time immemorial, and cod have supported a commercial fishery for hundreds of years. Driven by industrialization of fisheries and a lack of adequate management, cod have a long legacy of being fished at rates that are unsustainably high.

Currently, Atlantic cod stocks in the Gulf of Maine and Georges Bank are both overfished, and both have been experiencing overfishing for more than a decade. With unchecked overfishing, both cod stocks in New England are at a mere fraction of their historical size and are now less abundant than they have been on average for the last four decades.³ Fishery managers have failed to control this overfishing with serious impacts to the stocks, pointing to the need to address gaps in requirements to end overfishing and rebuild overfished stocks.

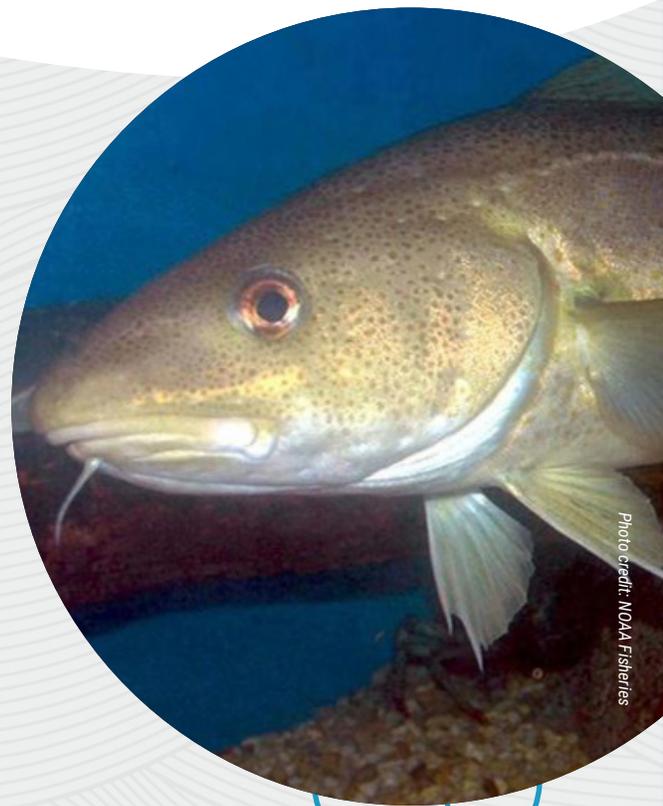


Photo credit: NOAA Fisheries

ENDNOTES

- 1 NOAA Fisheries. 2021. Status of Stocks 2020: Annual Report to Congress on the Status of U.S. Fisheries. Available at: <https://www.fisheries.noaa.gov/national/sustainable-fisheries/status-stocks-2020>
- 2 NOAA Fisheries. 2020. 2017 Fisheries Economics of the United States Report Infographics. Available at: <https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states>
- 3 NOAA Fisheries. 2021. Atlantic cod. Species Directory. Available at: <https://www.fisheries.noaa.gov/species/atlantic-cod>