Status of Stocks 2019

Annual Report to Congress on the Status of U.S. Fisheries

JULY 2020

NOAA FISHERIES

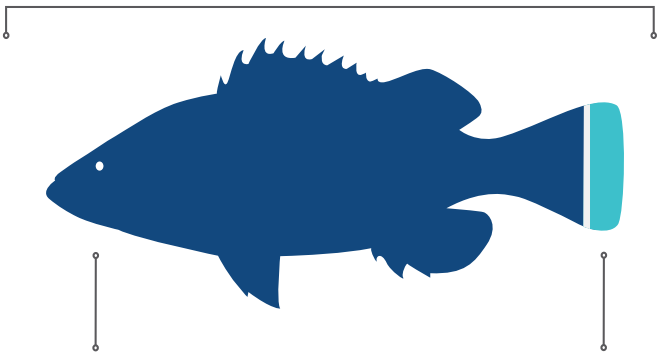
Status of Stocks 2019

NOAA Fisheries is pleased to present the 2019 Report to Congress on the Status of U.S. Fisheries. This report highlights our efforts to ensure the sustainability of fisheries and fishing communities while maximizing fishing opportunities. Through the combined efforts of NOAA Fisheries, the eight regional fishery management councils, and other partners, the number of stocks on the overfishing list reached an all-time low. The total number of stocks listed as overfished slightly increased and two previously overfished stocks were rebuilt.

Economic Benefits of Sustainable Fisheries Management

Sustainable fisheries play an important role in the nation's economy. Combined, U.S. commercial and recreational saltwater fishing generated more than $244 billion in sales and supported more than 1.7 million jobs in 2017. By ending overfishing and rebuilding stocks, we are strengthening the value of U.S. fisheries to the economy, our coastal communities, and marine ecosystems and providing sustainable seafood for the nation. Maintaining this sustainability requires an adaptive process that relies on sound science, innovative management approaches, effective enforcement, meaningful partnerships, and public engagement.

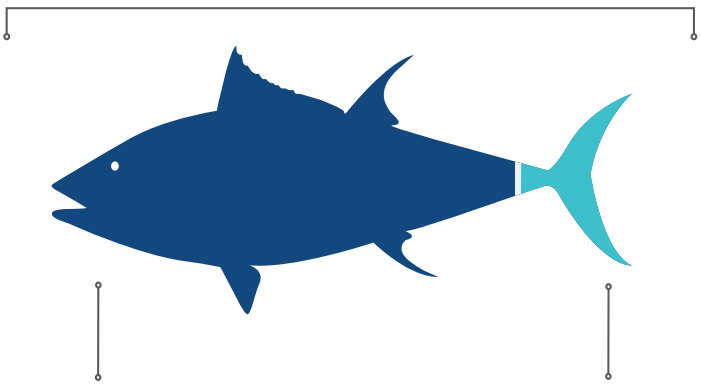
321 Stocks with Known Overfishing Status



93% not subject to overfishing (299 stocks)

7% subject to overfishing (22 stocks)

244 Stocks with Known Overfished Status



81% not overfished (198 stocks)

19% overfished (46 stocks)

The Year in Review

At the end of 2019, there were 22 stocks on the overfishing list and 46 on the overfished list. Southern California cowcod and American plaice were rebuilt in 2019 bringing the total number of stocks rebuilt since 2000 to 47. White marlin, which has been on the overfishing list since 2000, was removed this year, as a result of continued cooperation with our international partners.

NOAA Fisheries manages 461 stocks or stock complexes in 46 fishery management plans. Each year, we determine the status of fish stocks and stock complexes through stock assessments. Of 461 stocks and stock complexes, 321 have a known overfishing status and 244 have a known overfished status. In 2019, we conducted the first Pacific Coast big skate stock assessment, and results show that the stock is not subject to overfishing and not overfished.

2018	2019
28 (9%) on overfishing list	22 (7%) on overfishing list
43 (18%) on overfished list	46 (19%) on overfished list
45 stocks on rebuilt list	47 stocks on rebuilt list

Summary of 2019 List Changes

OVERFISHING LIST

Removed	Added
Blueline tilefish – Southern Atlantic Coast	Gray triggerfish - Gulf of Mexico
Chinook salmon – Columbia River Basin: Upper River Summer	Greater amberjack - Gulf of Mexico
Gray snapper - Gulf of Mexico	Greater amberjack - Southern Atlantic coast
Hogfish – Florida Keys/East Florida	Red grouper - Southern Atlantic coast
Lane snapper – Gulf of Mexico	
Summer flounder – Mid-Atlantic coast	
Tilefish - South Atlantic Coast	
White marlin - Atlantic	
Yellowtail flounder - Cape Cod / Gulf of Maine	
Yellowtail flounder - Southern New England / Mid-Atlantic	

OVERFISHED LIST

Removed	Added
Yellowtail flounder - Cape Cod / Gulf of Maine	Bluefish - Atlantic Coast
	Pacific sardine – Northern Subpopulation
	White hake - Gulf of Maine / Georges Bank
	Winter flounder – Georges Bank

REBUILT STOCKS

American plaice - Gulf of Maine / Georges Bank
Cowcod - Southern California

Ending Overfishing under Effective Laws

Under the Magnuson-Stevens Fishery Conservation and Management Act, the United States has become an international leader in fisheries management. The law has been reauthorized twice since its enactment—once in 1996 and again in 2006.

In 2006, Congress added a requirement to use annual catch limits to end and prevent overfishing. In 2019, 87 percent of all stocks or complexes did not exceed annual catch limits. When catch limit overages occur, NOAA Fisheries and the councils take steps to ensure overages don't continue. Monitoring catch levels and keeping them in check on an annual basis helps reduce the chance of overfishing and ensures long-term biological and economic sustainability.

Challenges in Fisheries Management

The stocks added to the 2019 overfishing and overfished lists illustrate several challenges inherent in fisheries management. This year, environmental change and continued refinements in fisheries data were drivers behind some of the new listings. For example, although commercial fishing of Pacific sardine has been banned since 2015, ocean conditions led to years of poor reproduction that have reduced the Pacific sardine population to very low levels.

The most recent assessment for bluefish incorporated new recreational data that provides a more accurate estimate of stock size, showing the stock is overfished. Additionally, catch overages resulted in overfishing listings for some South Atlantic and Gulf of Mexico stocks. Refining our scientific data and adapting our management response is an ongoing process that takes time. Despite challenges, our knowledge and the overall status of our fisheries continues to improve.

Overfishing and Overfished

The main concepts related to "overfishing" and "overfished" covered in this report are:

Maximum sustainable yield (MSY): The largest long-term average catch that can be taken from a stock under prevailing environmental and fishery conditions.

Overfishing: A stock having a harvest rate higher than the rate that produces its MSY.

Overfished: A stock having a population size that is too low and that jeopardizes the stock's ability to produce its MSY.

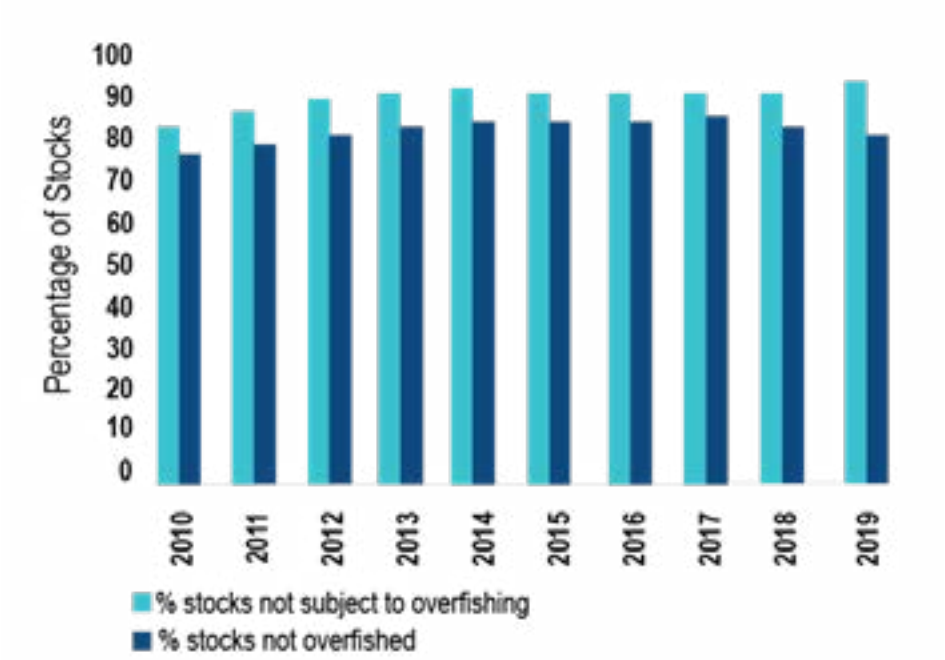
Rebuilt: A stock that was previously overfished and that has increased in abundance to the target population size that supports its MSY.

What's the difference?

As a harvest rate, overfishing is a direct result of fishing activities. Allowed to continue unchecked, overfishing is associated with many negative outcomes, including a depleted population. Current management practices—such as annual catch limits and accountability measures—reduce the likelihood of this happening.

As a population size, overfished can be the result of many factors, including overfishing, as well as habitat degradation, pollution, climate change, and disease. While overfishing is sometimes the main cause of an overfished stock, these other factors can also play a role and may affect the stock's ability to rebuild.

Percentage of Stocks Not Subject to Overfishing and Not Overfished 2010 - 2019



How We Rebuild Fisheries

When a stock becomes overfished, a council, or NOAA Fisheries for Atlantic highly migratory species, must develop a rebuilding plan. This plan typically allows fishing to continue at a reduced level so the stock can rebuild to its target level and produce its maximum sustainable yield (MSY). This approach keeps fishermen and waterfronts working while stocks rebuild.

Thirty-eight stocks or stock complexes are currently in rebuilding plans. NOAA Fisheries monitors rebuilding stocks and, through the council process, adjusts management measures to increase stock abundance to a target level that supports MSY. When a rebuilding stock increases above the overfished threshold, the stock is removed from the overfished list but remains under its rebuilding plan until it is fully rebuilt. Currently, of 38 stocks with rebuilding plans, five are no longer overfished but continue to be managed under rebuilding plans.

Go F.I.S.H.

NOAA Fisheries is currently working with the Northeast Fisheries Science Center's Study Fleet to develop an application called GOFISH, short for Graphical Offshore Fishing Information System Homepage. For the past seven years, participating fishermen have provided haul-by-haul catch and bottom water temperature information. The data will be used by fisheries scientists and managers to contribute quantitative information for scientific research and stock assessments to improve our understanding of the Northeast's complex ocean ecosystem. The GOFISH app will produce temperature-depth plots, bycatch analysis graphics, and other visualizations that will help fishermen in their future fishing operations.

Message in a Bottle

Beachcombers in Texas found a message in a bottle this year that was deployed by the U.S. Bureau of Commercial Fisheries (the predecessor of NOAA Fisheries) more than 50 years ago. The enclosed message instructed the finder to provide the date and location of the bottle in support of a study on water currents. NOAA Fisheries continues to carry on a proud tradition of government/public teamwork to further our knowledge about ocean ecosystems.

The Science Behind Stock Status

Fishery management plans must specify objective and measurable criteria (reference points) to determine when a stock is overfished or subject to overfishing. A scientific analysis of the abundance and composition of a fish stock, as well as the degree of fishing intensity, is called a stock assessment. Stock assessments are subject to regional peer review as part of the process to ensure that management decisions are based on the best scientific information available. In fiscal year 2019, NOAA Fisheries conducted 187 stock assessments.

The councils and NOAA Fisheries use information from stock assessments to develop and recommend annual catch limits and other conservation and management measures. While catch limits are set annually, assessments are often done less frequently. To determine whether catch limits have successfully ended or prevented overfishing, NOAA Fisheries may use either the fishing intensity metrics and reference points derived in a stock assessment or a comparison of catch to the overfishing limit. If the catch-to-overfishing-limit comparison is used, an overfishing determination is made annually. If a stock assessment is used, due to timing of the next stock assessment, several years may pass before we are able to determine if catch limits successfully ended overfishing.

Overfishing and Overfished Stocks as of December 31, 2019

■ 46 On Overfished List ● 22 On Overfishing List

North Pacific
- Blue king crab – Pribilof Islands
- Blue king crab – St. Matthew Island

Pacific
- Chinook salmon – Sacramento River fall
- Chinook salmon – Klamath River fall
- Coho salmon – Queets[1]
- Coho salmon – Juan de Fuca[1]
- Coho salmon – Snohomish[1]
- Pacific sardine – Northern subpopulation

Pacific and Western Pacific
- ● Pacific bluefin tuna – Pacific[1]
- ● Swordfish – Eastern Pacific[1,2]
- ● Yellowfin tuna – Eastern Pacific[1]

Western Pacific
- ● Striped marlin – Western/Central Pacific[1]
- Seamount Groundfish Complex – Hancock Seamount[1]

Gulf of Mexico
- ● Greater amberjack
- ● Gray triggerfish

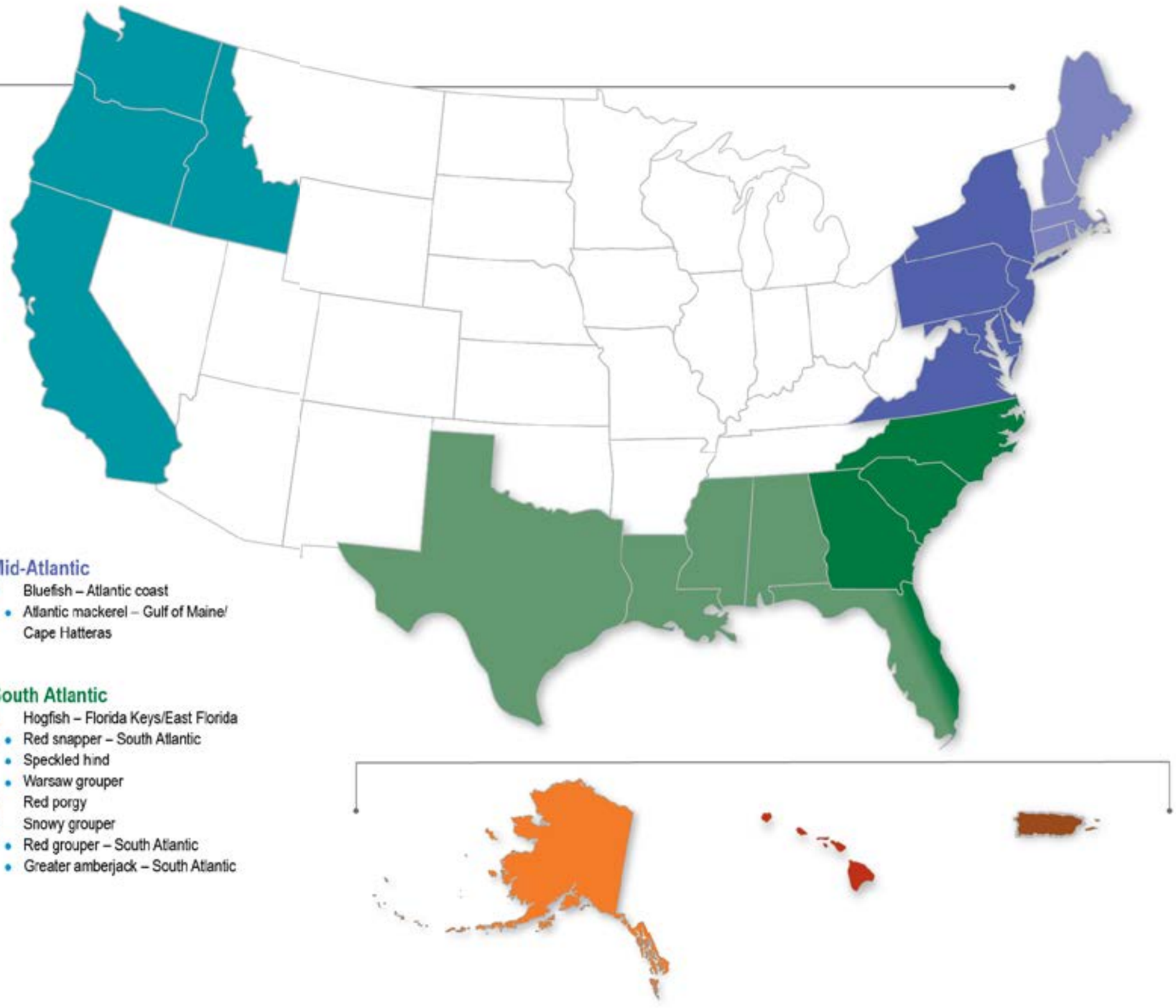
Caribbean
- Goliath grouper
- Nassau grouper
- Queen conch

New England
- ● Atlantic cod – Georges Bank
- ● Atlantic cod – Gulf of Maine
- Windowpane – Gulf of Maine/Georges Bank
- Witch flounder
- ● Yellowtail flounder – Georges Bank
- Yellowtail flounder – Southern New England/Mid-Atlantic
- Thorny skate – Gulf of Maine
- Atlantic halibut
- Atlantic salmon
- Atlantic wolffish
- Ocean pout
- Winter flounder – Southern New England
- Winter flounder – Georges Bank
- ● Red hake – Southern Georges Bank/Mid-Atlantic
- White hake – Gulf of Maine/Georges Bank

Highly Migratory Species
- ● Blacknose shark – Atlantic
- ● Blue marlin – Atlantic[1]
- ● Dusky shark – Atlantic
- White marlin – Atlantic[1]
- ● Scalloped hammerhead – Atlantic
- Porbeagle shark – Atlantic[1]
- Sandbar shark – Atlantic
- ● Bigeye tuna – Atlantic[1]
- ● Shortfin mako – North Atlantic[1]

Mid-Atlantic
- Bluefish – Atlantic coast
- ● Atlantic mackerel – Gulf of Maine/Cape Hatteras

South Atlantic
- Hogfish – Florida Keys/East Florida
- ● Red snapper – South Atlantic
- ● Speckled hind
- ● Warsaw grouper
- Red porgy
- Snowy grouper
- ● Red grouper – South Atlantic
- ● Greater amberjack – South Atlantic



[1] Stock is fished by U.S. and international fleets under a formal international agreement
[2] The geographic boundary of this stock extends from Mexico south and west to the Palmyra Atoll.

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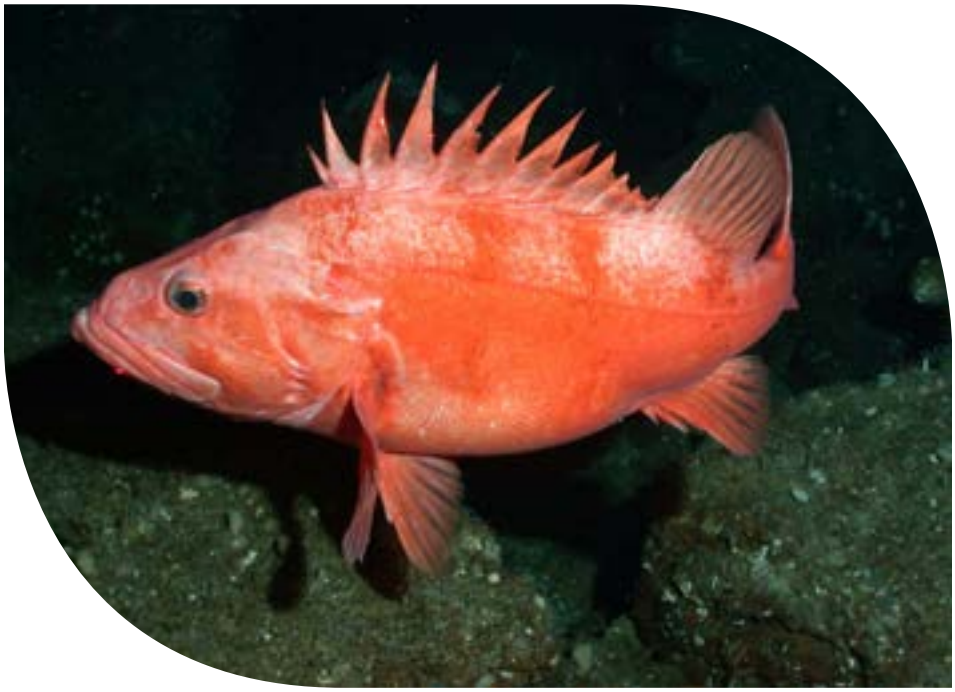
Southern California Cowcod

We successfully rebuilt cowcod after 19 years under a rebuilding plan with measures such as individual fishing quotas in the trawl fishery, use of recreational fishing gear that improved survival rates of discarded cowcod, and large area closures. Cowcod is now the ninth stock in the Pacific Coast Groundfish Fishery Management Plan to be rebuilt since 2004.



Collaboration between fishermen, environmental groups, fisheries managers, and others has led to higher catch levels of cowcod and many other deep-water species previously constrained under rebuilding plans. It has also allowed for the reopening of thousands of square miles of fishing grounds that were closed while stocks were rebuilding.

Consumers can now look forward to expanded seafood markets as a result of these groundfish rebuilding achievements that will support sustainable fisheries.

American Plaice

American plaice, an important flatfish (flounder) in the northwest Atlantic Ocean, was rebuilt after 15 years under a rebuilding plan. During this time, the stock size more than tripled and will result in a 96 percent increase in catch levels in 2020 compared to 2019. Although not as highly prized as some of the other New England groundfish species, this mild white fish, also called dab, is poised to become a new favorite of seafood consumers looking for sustainable sources of lean healthy protein.

Adapting for the Future

NOAA Fisheries, the councils, and our many partners continue to build on the United States' successful fisheries management approach by implementing tools and advancing policies that will help us meet the challenges of today and tomorrow. Collectively, we are working harder than ever to meet our conservation goals in a way that maximizes revenue and increases fishing opportunities. In 2019, we revised or eliminated fishery regulations to reduce regulatory constraints and optimize fishery benefits. This resulted in 15 deregulatory actions that led to approximately $56 million in cost-savings.

In 2019, we made progress to address the complex issue of allocating fishing privileges between user groups. As required by the agency's allocation policy, councils that have fisheries that should have their allocations reviewed, identified triggers for those reviews. These reviews will ensure that allocations remain responsive to current fishery conditions, reflect the best available information, and are fair and equitable to fishery participants. In 2019, NOAA Fisheries also expanded the Stock Assessment Prioritization process to the Caribbean and Western Pacific councils to ensure resources are focused on the right level and frequency of stock assessments. All councils now have a prioritization process in place, with work continuing in 2020 to achieve full implementation by all councils. NOAA Fisheries also continues to increase accessibility and use of fisheries data by scientists, stakeholders, and decision-makers. Building on improvements to the Marine Recreational Information Program that have been implemented in the past several years, in 2019 NOAA Fisheries scientists incorporated calibrated recreational catch statistics into stock assessments for the East Coast and Gulf of Mexico. These revised catch data have improved our understanding of stock dynamics and are essential to well-informed management actions.

These are just a few examples of how we are looking to the future to ensure the long-term sustainability of our fisheries and the businesses and communities that depend on them. Our dynamic, science-based management process is proving successful at ending overfishing and rebuilding stocks, and it is helping us realize significant benefits to the U.S. economy. We look forward to working with Congress, the councils, our state partners, and other stakeholders to further these efforts and identify other opportunities to strengthen the long-term biological and economic sustainability of our nation's fisheries.

U.S. Secretary of Commerce
Wilbur L. Ross, Jr.

Assistant Secretary of Commerce for Environmental Observation and Prediction Performing the duties of Under Secretary of Commerce for Oceans and Atmosphere
Neil Jacobs, Ph.D.

Assistant Administrator for Fisheries
Chris Oliver

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