



Supporting Fish & Fishermen

An Introduction to the Magnuson-Stevens
Fishery Conservation and Management Act

This booklet provides an introduction to fishery management in U.S. federal ocean waters, where fishing is primarily managed through the Magnuson-Stevens Fishery Conservation and Management Act, also known as the Magnuson-Stevens Act or MSA. Common fishery management terms are referenced in **bolded blue** throughout the text and are defined in the glossary at the end of the booklet.



Who is Ocean Conservancy?

Ocean Conservancy is working to protect the ocean from today's greatest global challenges. Together with our partners, we create science-based solutions for a healthy ocean and the wildlife and communities that depend on it.

Our Fish Conservation Program has spent decades working with fishermen and lifting up the voices of the communities that depend on our ocean. We work to find practical solutions to today's fishery management challenges to ensure sustainable fishing and healthy coastal communities far into the future.



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Fishing Is an American Tradition... ...and an Important Economic Driver

History is often told as the story of a land, but arguably whole chapters of our nation's history are stories of water. Our vast oceans, teeming with fish like cod, herring, mackerel and salmon, have supported the families, businesses, communities and traditions of people living here since time immemorial. Fishing is an important part of American culture — from commercial fishermen who spend weeks at sea to bring in a fresh catch, to American Indian and Alaska Native Tribes with thousands of years of fishing traditions, to recreational fisherman that may spend just a few days each year trying to catch the big one. And for many Americans, having fish for dinner is one of their few remaining connections to the wild-caught natural resources of our nation.

Not long ago, our fisheries were in real trouble. Historic **overfishing** led to failing fishing ports and businesses. Fishermen, working with fishery managers and scientists, sacrificed and worked hard to bring our fisheries back. Today, the United States has one of the strongest fishery management systems in the world. While there is still work to be done, overfishing is now at near-historic lows.

In order to enjoy all the benefits of healthy fisheries, we manage with strong, science-based conservation measures that meet social, economic, and environmental objectives. This ensures we have fish now and in the future. Without management, overfishing can put entire fisheries at risk of collapse. And when that happens, we all lose.

Fisheries form an important part of our economy. Commercial and recreational fishing generated over \$212 billion in sales impacts and supported 1.7 million jobs in 2016.

A “**fishery**” can mean lots of things: the fish that are caught, the act of fishing, and the people who fish.



TYPES OF FISHING



Commercial

Operations vary in size, but these fishermen fish with the intent of selling their catch as a livelihood.



Recreational – For-hire

Captains and crew make a living by taking people out fishing. Large headboats charge per individual, while charter captains reserve their boat for a small private group.



Recreational – Private Anglers

These fishermen catch fish primarily for entertainment and cannot sell their catch.



Subsistence

This type of fishing refers to a way of life that includes fishing, hunting, gathering and related activities which are connected to both food security and culture. Most subsistence fishing is not directly managed under the Magnuson-Stevens Act, but many aspects of federal fishery management have impacts on subsistence species and users.



The Basics of U.S. Fishery Management

Conserving our fish and eating them too

THE VISION

Healthy fish populations and resilient ocean ecosystems that support thriving fishing businesses, provide ample fishing opportunities, and deliver nutritious protein to the dinner plates of families throughout America and around the world.

HOW WE GET THERE

The Magnuson-Stevens Fishery Conservation and Management Act.

First signed in 1976 and reauthorized twice, the Magnuson-Stevens Act is the landmark law that guides the long-term sustainable use of our ocean fish resources. The law is guided by three key objectives:

1. It supports fishing businesses and fishing opportunities (see page 15)
2. It paves the way to ending **overfishing** in our waters using **annual catch limits** (see page 9)
3. It oversees the **rebuilding** of U.S. fisheries that are in poor health (see page 11)

The Magnuson-Stevens Act works by establishing science-based management principles that are guided by the 10 National Standards (see page 13). Regional stakeholders develop plans based on these principles that are designed to meet regional needs, and NOAA Fisheries implements these plans to meet conservation and management goals.

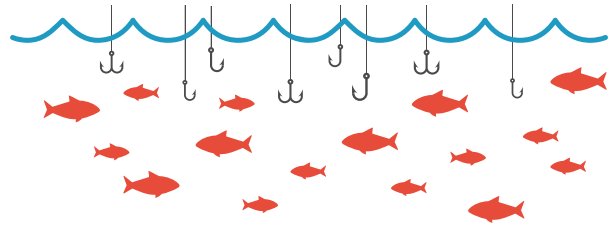
“Fishery resources are finite but renewable. If placed under sound management before overfishing has caused irreversible effects, the fisheries can be conserved and maintained.”

The Magnuson-Stevens Act

**SUSTAINABLE, SCIENCE-BASED
MANAGEMENT IS DESIGNED
TO PREVENT:**

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.



To put it in banking terms, overfishing is like taking more out of an account than is going in. Eventually, the fish stock will become overfished, similar to bankruptcy.



Photo credit: Ery DeSmet

“ I was impressed from the start at how [the Magnuson-Stevens Act] emerged from a bipartisan partnership 40 years ago: Senators Magnuson and Stevens working together. It confirmed for me that people are meant to work together.”

**Ery DeSmet, Angler
Woodinville, WA**

NOAA Fisheries

The National Oceanic and Atmospheric Administration (NOAA) is the federal agency charged with managing fisheries in federal ocean waters. Ultimately, the secretary of commerce has the authority and responsibility to manage fisheries under the Magnuson-Stevens Act.

The arm of NOAA that actually carries out management is NOAA Fisheries, which is also called the National Marine Fisheries Service (NMFS). NOAA Fisheries carries out science to support management, writes and implements regulations, and works in other areas that affect fish, such as habitat restoration. It coordinates with the **regional fishery management councils** and other regional and international management bodies.

Forty Years of Bipartisan Cooperation Managing Our Fisheries

TIME IMMEMORIAL

American Indian and Alaska Native tribes harvested fish and other marine resources utilizing traditional harvest and management methods.

BEFORE 1950s

Ocean resources were generally treated as inexhaustible. There were few limits on fishing.



1950s - 1970s

After World War II, commercial fishing boomed due to new technology and larger vessels. Fishermen could travel farther offshore, where there were few federal regulations to manage catch. At the same time, large foreign vessels capable of catching vast quantities of fish moved closer to U.S. shores. As domestic catch began to dwindle, concerns grew over the impact of fishing on fish stocks.



1950

1960

1970

Major milestones of the Magnuson-Stevens Act >

1976

To prevent foreign fishing fleets from taking fish near American shores, Congress passed the bipartisan Fishery Conservation & Management Act. Spearheaded by Senators Ted Stevens (R-AK) and Warren Magnuson (D-WA), the Act:

- Balanced conservation and **fishery** development
- Established a 200-mile zone to protect domestic fisheries
- Called for sustainable management to prevent **overfishing**



Photo credit: Stevens Foundation

1980s - 1990s

As domestic fisheries developed, intensive fishing caused many fish stocks to continue to decline.



1996 - 2006

Despite improvements in the law, fish stocks made only modest gains, in part because managers could ignore scientific advice and there was little accountability for excessive fishing.

2007 - PRESENT

Requiring science-based management and annual catch limits was a breakthrough that led to the rebuilding of dozens of stocks. Many fisheries are healthier now than they have been in decades.

1980



1980

The Fishery Conservation and Management Act was renamed the Magnuson Fishery Conservation and Management Act after Senator Magnuson.

1990



1996

Recognizing fish stocks were continuing to decline, Congress passed the Sustainable Fisheries Act to reauthorize and strengthen the law, renaming it the Magnuson-Stevens Fishery Conservation and Management Act to honor continued bipartisanship. The Magnuson-Stevens Act:

- Added provisions for the timely **rebuilding** of fish stocks
- Strengthened management to define and end **overfishing** immediately

2000

2010



2006

In response to continued overfishing, Congress again reauthorized the Magnuson-Stevens Act. President Bush signed the bill into law in early 2007. The Act:

- Required managers to set **annual catch limits** at or below what is suggested by the best available science
- Added **accountability measures** for exceeding fishing limits



The Five “Ws” of Fishery Management

At its core, fishery management is about ensuring we have plenty of fish now and in the future by balancing the number of fish in the sea with what is caught by fishermen.

WHAT is managed?


We manage how many fish are caught and killed each year. This means accounting for the health of the stock in the water and implementing measures that influence the amount of fishing that takes place. Management is about sustaining both the fish and the **fishery**, so management is designed to achieve environmental, economic and social goals.

WHY do we manage?

It's simple: We manage to ensure we have enough fish to continue to enjoy all the social and economic benefits of healthy fisheries now and in the future. Management brings stability and accountability into fisheries, and helps address tough questions around sharing the fish, which are a public resource.

474 
stocks managed

9.9 billion 
pounds landed commercially

397 million 
fish landed as part of recreational fishing

**All numbers are from 2017, the most recent data available.*



Photo credit: Benjamin Durmond

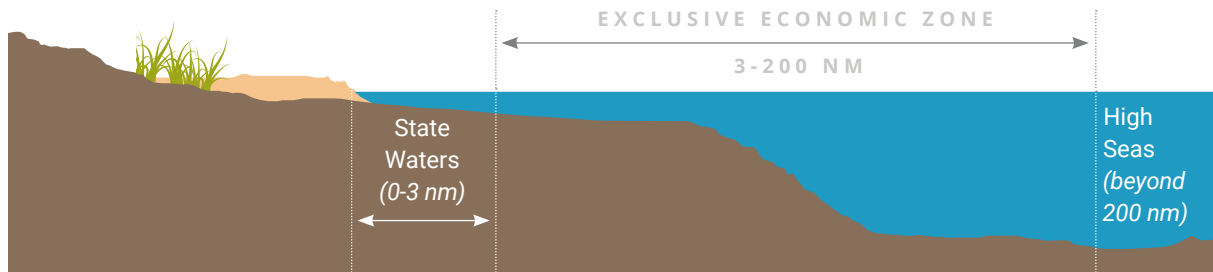
WHEN do we manage?

Management happens year-round and must be frequently reassessed and adjusted to ensure the long-term health of our stocks. Fishing seasons are opened and closed, annual sustainable limits on catch are set, and data on fisheries is collected during seasons to support good management. We also manage for the long-term health of our stocks.

Overfished stocks are put in **rebuilding** plans to bring them back to healthy levels.

WHERE do we manage?

The Magnuson-Stevens Act manages fishing that takes place in waters generally between 3 and 200 nautical miles (nm) offshore in the U.S. exclusive economic zone (EEZ). States manage fisheries within 3 nm of the shore* in coordination with other states and federal agencies. Beyond 200 nm are international waters, which are known as the “high seas,” and are managed by the international community, including the United States.

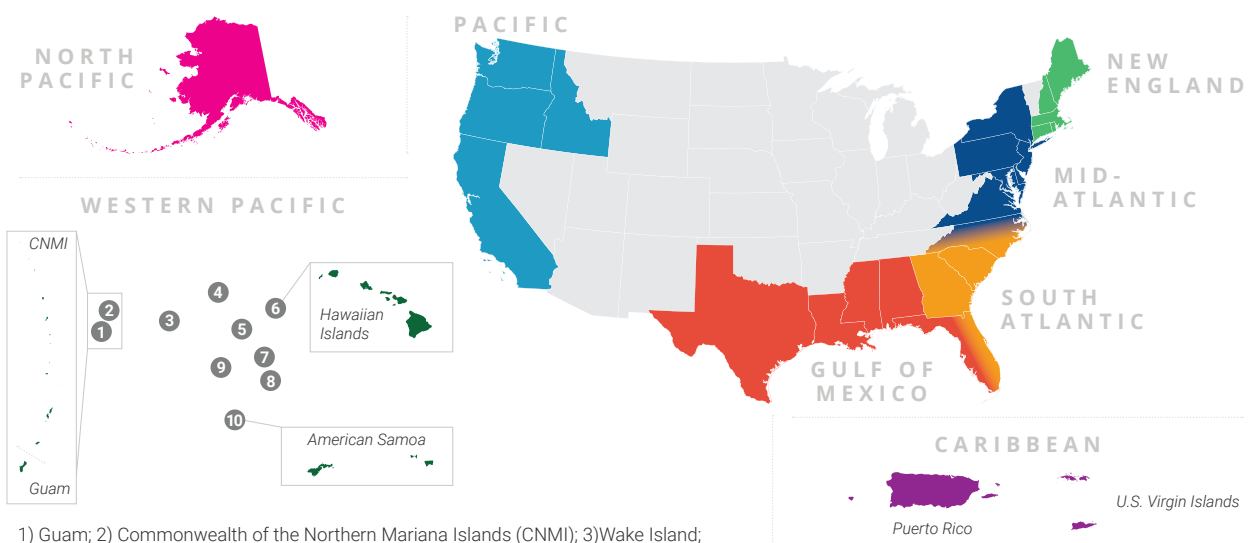


*Some state water boundaries extend to 9 nm offshore.

Source: National Energy Education Development Project (public domain)

WHO are the managers?

The Magnuson-Stevens Act established a unique management structure with eight **regional fishery management councils** that are charged with developing **fishery management plans** and measures of health for fisheries in their jurisdictions. The councils are comprised of regional fishermen, tribal and industry representatives, federal and state managers, scientists and NGOs. Most council members are nominated by the governor of their state and are appointed by the secretary of commerce. To manage effectively, councils are advised by several auxiliary groups, including advisory panels, management teams and Science and Statistical Committees, which are made up of expert scientists. Management decisions made by the councils go to the secretary of commerce and NOAA Fisheries for approval (or disapproval) and implementation.



- 1) Guam; 2) Commonwealth of the Northern Mariana Islands (CNMI); 3) Wake Island; 4) Midway Atoll; 5) Johnston Island; 6) Hawaiian Islands; 7) Palmyra Atoll and Kingman Reef; 8) Jarvis Island; 9) Baker and Howland Islands; 10) American Samoa

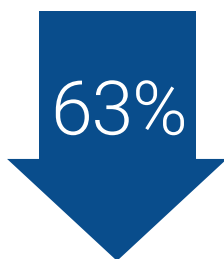
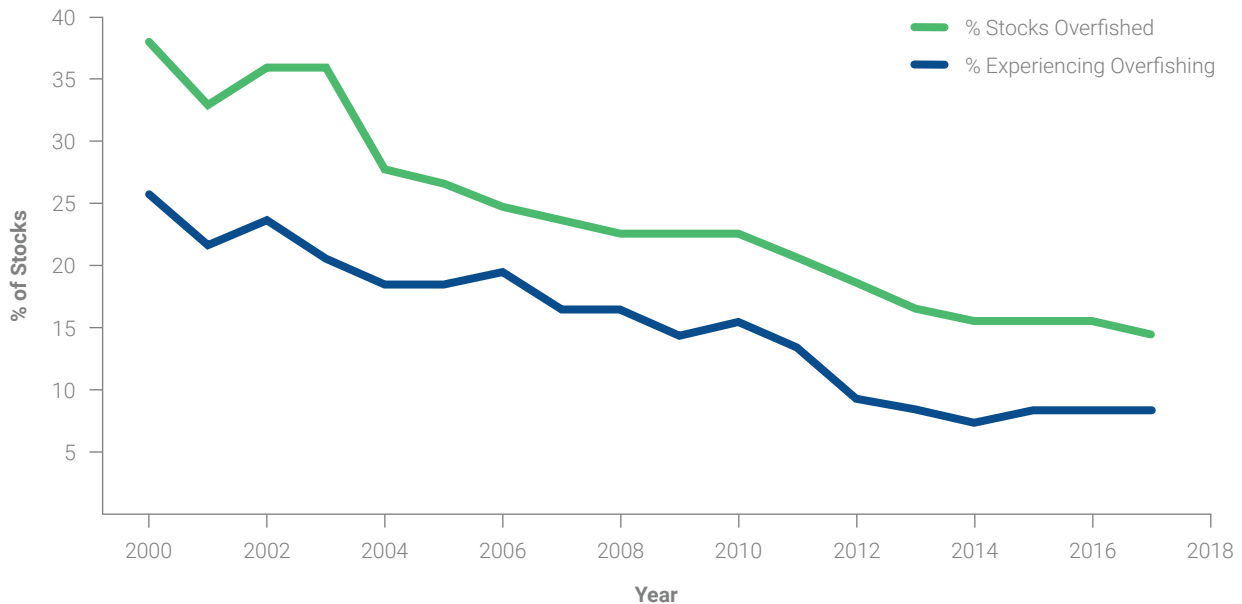
Source: U.S. Regional Fishery Management Councils

Science-Based Limits For Long-Term Sustainability

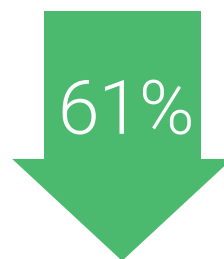
Science plays an essential role in how fisheries are managed. Each year, the **regional fishery management councils** work with their science advisors to determine the sustainable amount of fish that can be caught and killed. This limit, the **annual catch limit** (ACL), is the fundamental conservation tool in the Magnuson-Stevens Act. Fishing is regulated to avoid exceeding that limit, as exceeding the ACL could result in **overfishing**. Overfishing harms the long-term health of the stock and leads to more restrictive management measures and less stability for fishermen over time.

If catch overages happen, managers must implement **accountability measures** to ensure the health of the stock is not significantly affected. This could include restricting fishing in the next year to allow the stock to reproduce. In some cases, accountability measures apply only to the sector of fishing (e.g., commercial fishermen or private anglers) that had the overage. That way, sectors that are fishing responsibly are not penalized. However, fishermen are all in this together. If one sector regularly overfishes, it will impact access and catch for all fishermen.

ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES SHOW SUCCESS ON THE WATER



The percent of **stocks experiencing overfishing** has **dropped by 63%** since 2000. Only 30 stocks are experiencing overfishing, a near all-time low.



The percent of **overfished stocks** has **dropped by 61%** since 2000. Now, only 35 stocks are overfished, an all-time low.

**Numbers are calculated by comparing numbers from 2000 to those from 2017, the most recent data available.*

The Magnuson-Stevens Act requires regional fishery management councils to set ACLs at levels that provide the greatest overall benefit to the nation. This means managers consider trade-offs between social, economic and ecological factors, take uncertainty into account, and set fishing levels that aim to achieve long-term sustainability for both fish and fishermen. ACLs aren't meant to be inherently restrictive. They reflect the reality of the health of the stock and management objectives. The Magnuson-Stevens Act does not dictate the management approaches that councils should use to achieve an ACL, just that fishing should not be allowed to exceed this sustainable limit.

DEMYSTIFYING STOCK STATUS

NOAA Fisheries reports annually to Congress on the health of our **fish stocks**. This table decodes the terms used in those updates. Overfishing occurs when a stock is caught at a rate that is too high to be sustainable, and an overfished stock has a size that is too low and jeopardizes its ability to ensure sustainable yields in the future. Stocks can be one of four combinations of states when it comes to overfished and overfishing.

Size of Stock

		Rate of Fishing	
		No overfishing	Overfishing
Size of Stock	Not Overfished	Fish stock is healthy and being fished at sustainable levels	Fish stock is healthy but too many fish are being caught
	Overfished	Fish stock is at a smaller size than is sustainable, but the rate of fishing is not too high	Fish stock is at an unhealthy size and too many fish are being caught



Photo credit: Abbie Schuster

“My fishing guide business and that of other charter captains relies on having enough fish in the water. We need a strong [Magnuson-Stevens Act] with strong annual catch limits to ensure an abundance of fish in the water for all of us to catch for many generations.”

Capt. Abbie Schuster
Kismet Outfitters
Martha's Vineyard & Maine

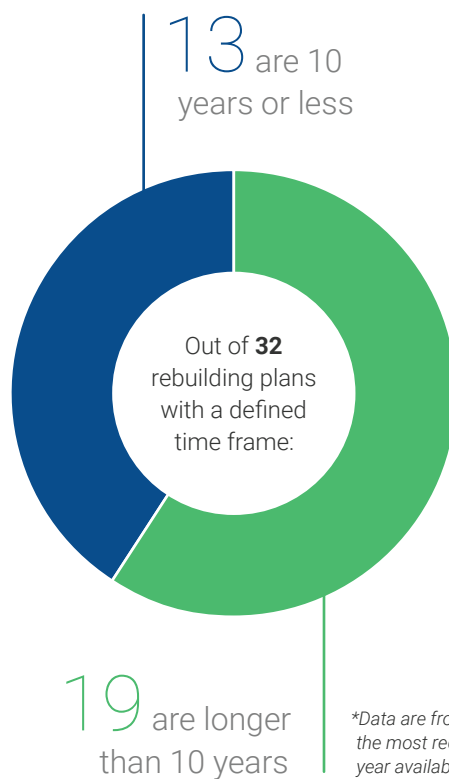
Bringing Fish Stocks Back from the Brink

What happens when a **fish stock** is **overfished**? Thanks to a 1996 revision to the Magnuson-Stevens Act, managers are required to develop a plan to rebuild it back to sustainable levels.

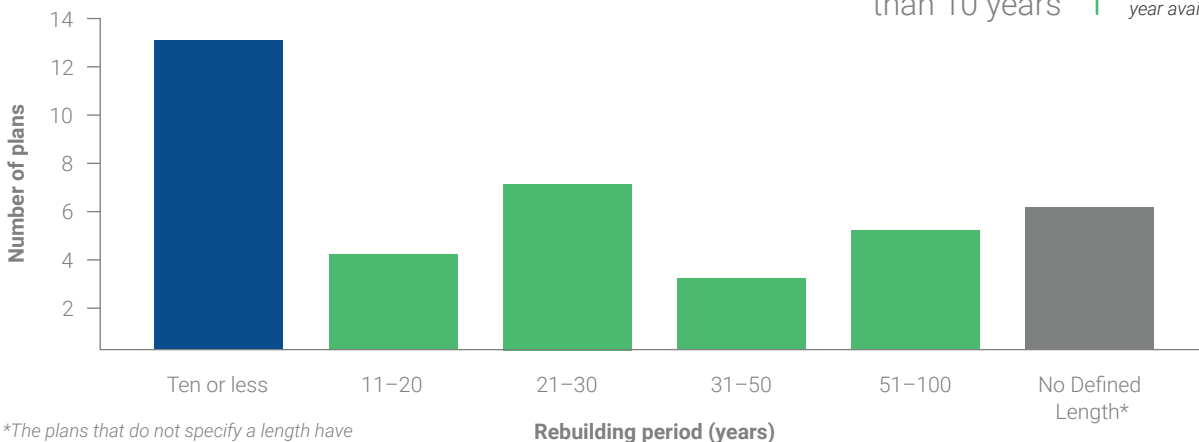
These plans typically achieve **rebuilding** by reducing fishing during the rebuilding period, which can take just a few years or stretch for decades. Since 2007, catch limits and **accountability measures** have helped achieve the levels of catch called for in rebuilding plans. As a result, 44 fish stocks have been rebuilt since 2000.

There is a common trade-off managers face when they have to decide how quickly to rebuild a stock: faster rebuilding could cause more economic impact in the short term but result in better outcomes in the long term. The Magnuson-Stevens Act calls for plans to set a rebuilding period that is as short as possible, after accounting for numerous factors.

There is a misconception that the plans must be 10 years or less. The law does say plans should be 10 years or less, but allows for plans to be longer based on biology, environmental conditions or the need for coordination with international management. In fact, most plans (59%) are longer than 10 years, and some plans are as long as 100 years.

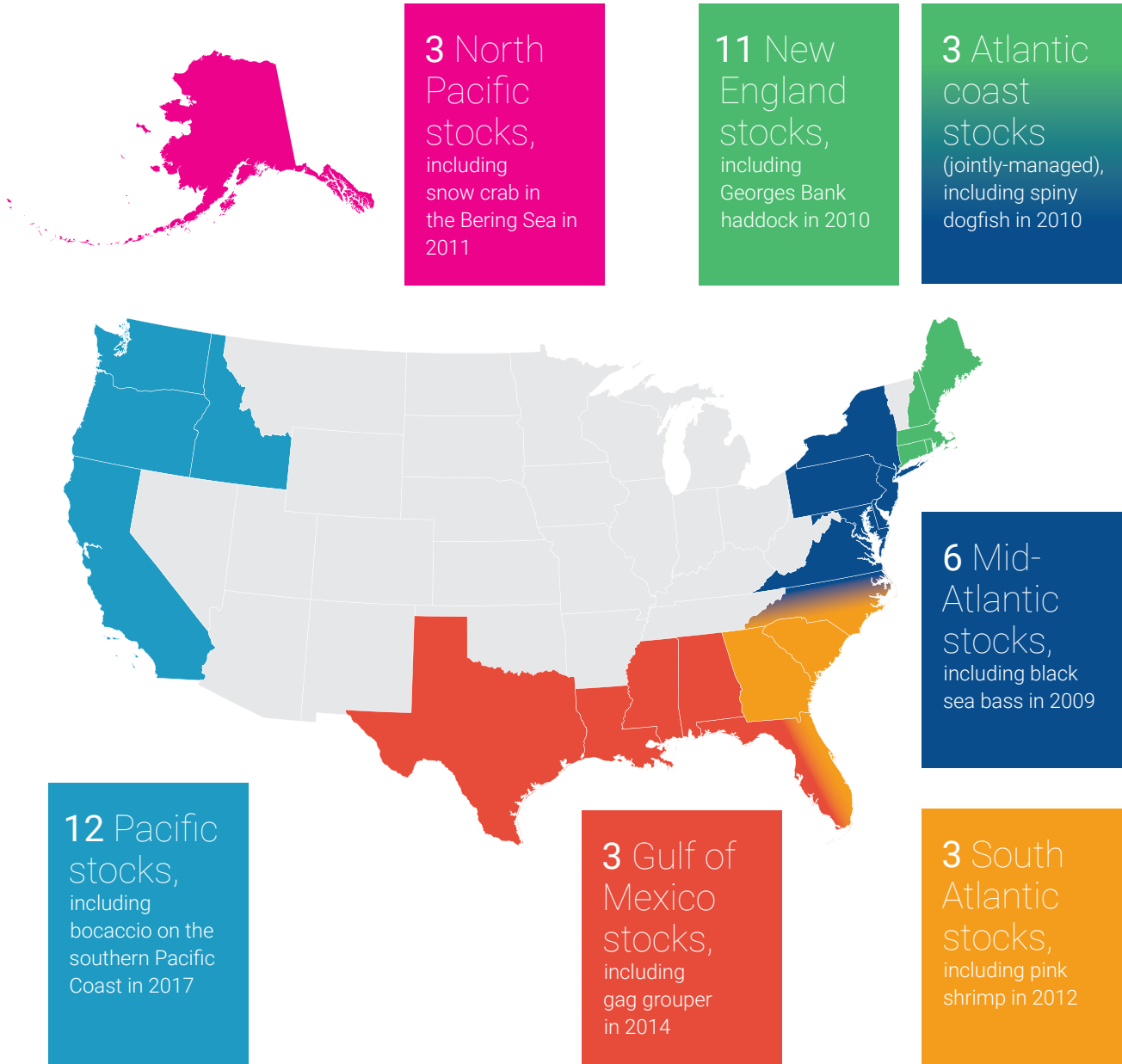


**Data are from 2017, the most recent year available.*



**The plans that do not specify a length have been in place for an average of 13.5 years.*

Since 2000, 44 fish stocks have been rebuilt back to healthy levels



*As of December 31, 2017.

The Magnuson-Stevens Act Is Guided by 10 National Standards

In addition to setting **annual catch limits** and **rebuilding** requirements, the Magnuson-Stevens Act guides management by establishing the National Standards. According to these ten principles, the most effective fishery management requires managers to:

- NS 1. Optimum yield** Prevent overfishing while maintaining sustainable fisheries for the long term.
- NS 2. Science** Use the best scientific information available.
- NS 3. Stock units** Manage stocks as a unit when it makes sense.
- NS 4. Allocation** Set allocations of fishing quota among different users and states that are fair and equitable, promote conservation and avoid consolidation.
- NS 5. Utilization** Use the fish resource efficiently, but not with economic allocation as its sole purpose.
- NS 6. The unexpected** Plan for things like uncertainty, variation and disasters.
- NS 7. Efficiency** Minimize costs of regulation and avoid duplication.
- NS 8. Fishing communities** Consider fishing communities, aiming for sustained participation and minimization of adverse economic impacts.
- NS 9. Bycatch** Minimize how many fish are caught unintentionally, and how many of those fish die.
- NS 10. Safety** Promote the safety of human life at sea.

Paraphrased from 16 U.S.C. § 1851(a)(1-10).

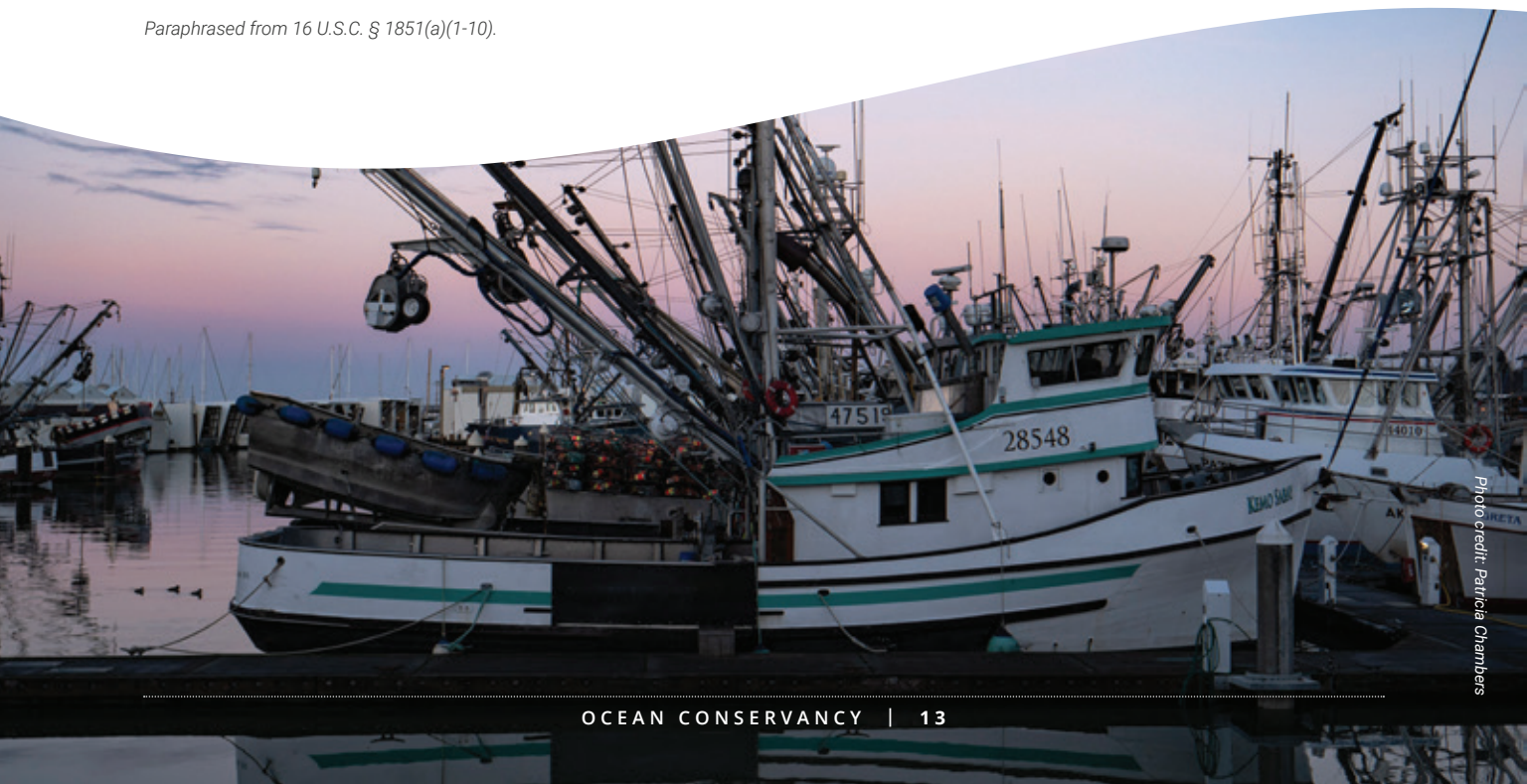












Photo credit: Patricia Chambers



What the Magnuson-Stevens Act Does and Does Not Do

The Magnuson-Stevens Act isn't prescriptive when it comes to the tools councils can use to manage their **fish stocks**. Managers can use many different approaches, including size, bag and trip limits; habitat restrictions; season lengths; permits; individual allocations or catch shares; fishing rates and other options to manage sustainably.

Successful management means removing the amount of fish that provides the most benefit to the nation after considering environmental, economic and social factors — referred to as **optimum yield**. Managers determine the optimum yield for each stock, a value that can't exceed the largest amount of fish that can be caught without jeopardizing the sustainability of the stock (the **maximum sustainable yield**). So long as managers are meeting the science-based standards for management, **fishery management plans** can take many approaches to achieve sustainability and support fishing.

What the Magnuson-Stevens Act does:	What the Magnuson-Stevens Act does <i>NOT</i> do:
<p> Ensures fishery management is consistent with the 10 national standards.</p>	<p> Does not specify which type of management should be used for a given fishery.</p>
<p> Requires using science-based annual catch limits and accountability measures to prevent overfishing.</p>	<p> Does not specify where science comes from. Data can come from many sources.</p>
<p> Requires that overfished stocks be rebuilt in as short a time as possible.</p>	<p> Does not require all overfished stocks to be rebuilt within 10 years.</p>
<p> Requires management plans to specify criteria that can be used to manage the fishery, like maximum sustainable yield, optimum yield, and definitions for overfishing and overfished.</p>	<p> Does not specify what to consider in optimum yield. If the fishery has specific social priorities (e.g., managing for localized abundance) those could be considered in the weighing of trade-offs to determine optimum yield.</p>
<p> Requires that allocations of quota are fair and equitable among users while considering conservation.</p>	<p> Does not lock in quota allocations between states or sectors.</p>

Conservation and Economic Benefits Go Hand in Hand

The economic stability of many coastal communities depends in large part on healthy ocean ecosystems that provide a steady, healthy supply of fish.

The economic impact of fishing extends far beyond just recreational and commercial fishermen. For example, fish processors and packagers rely on commercial fishing. In many coastal areas, recreational fishing is a major driver of tourism revenues for local dining and lodging establishments. Subsistence fishermen depend on healthy fish as a primary source of food and culture. The impact of fishing also carries inland. Restaurants across the country serve sustainable, wild-caught U.S. seafood. And fishing gear and boat manufacturers nationwide provide consumer goods to coastal fishermen.

Conservation and economic benefits go hand in hand. Our strong science-based fishery management system supports the commercial and recreational fishing industries and the wider economic activity they generate.

Quick facts

In 2017, Dutch Harbor, Alaska was the port with the highest volume of fish landed for the 21st consecutive year – a whopping

769 million pounds.

Subsistence cannot be accurately conveyed with a dollar value, but subsistence resources provide a critical source of food security and culture.

9.8 million anglers went saltwater fishing in 2016 and spent

\$30.8 billion

on trips and durable equipment for fishing.

Commercial fishermen in New Bedford, Massachusetts, alone brought in

\$389 million

in landed seafood value in 2017, making it the highest value port in the nation for the 18th consecutive year.

Commercial landings revenues in the United States totaled

\$5.3 billion

in 2016. That's an 11% increase (adjusted for inflation) since 2007, when important conservation reforms to the Magnuson-Stevens Act were first implemented.

Recreational anglers in Florida took

82 million trips

in 2017, which is the highest of any state and over 40% of all trips taken nationwide.

Commercial and recreational fisheries in the United States generated 1.7 million jobs, almost

\$212 billion

in sales impacts, \$64 billion in income impacts, and nearly \$100 billion in value-added impacts throughout the national economy in 2016.

The Marine Fishing Economy

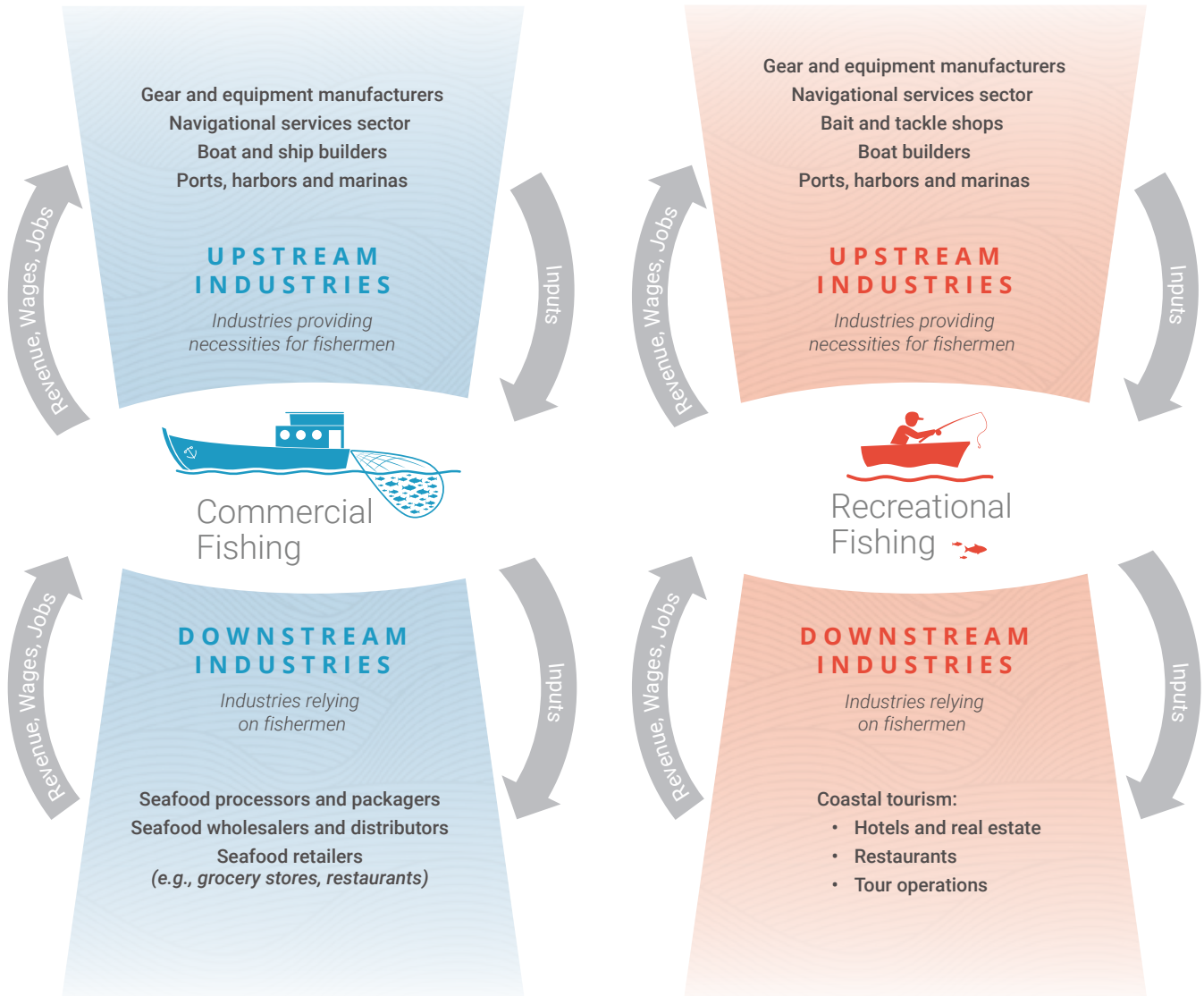


Photo credit: Julia A. Sanders

“The healthier the resource, the healthier the economics of our business.”

Capt. Bill Tucker
Commercial Reef Fish Fisherman
Dunedin, FL



U.S. Fisheries Are More Sustainable Than Ever Under the Magnuson-Stevens Act

The Magnuson-Stevens Act has always been about balance: between conservation and resource development, between local needs and national principles, and among the diverse stakeholders that rely on and enjoy fishing and fish. Over time, Congress has improved the law to create a management system that works for our ocean resources and the numerous communities that depend on them.

Managing fisheries is a big and complex task, and challenges remain. Our fisheries continue to face long-standing management issues as well as new pressures, such as shifting stocks and ecological changes due to climate and habitat stressors. The Magnuson-Stevens Act continues to guide us on the path to healthy fisheries. Thanks to our strong, science-based management framework, the United States stands as a leader in sustainable fishing.



Photo credit: Peter Mangolds

Glossary

Fishery management is full of terms that are commonly used but can be confusing. Here are a few important terms:

- **Annual Catch Limit (ACL):** The amount of fish (usually for one species in one region) that can be caught sustainably by fishermen over a period of one year. This amount can't exceed the scientific limit determined by experts using the best available science.
- **Accountability Measure (AM):** A management measure that provides accountability for a fishery to stay within its annual catch limit. Examples of accountability measures include modifications to bag and gear limits, area closures, and payback provisions, where if the catch limit is exceeded in one year, the next year's quota would be reduced by the overage.
- **Fishery:** One or more stocks of fish that can be treated as a unit for purposes of conservation and management and which are identified based on geographic, scientific, technical, recreational and economic characteristics; a fishery can also refer to fishing for such stocks.
- **Fishery Management Plan (FMP):** These plans are required under the Magnuson-Stevens Act for any species that require conservation and management. An FMP includes background, data and analysis for a stock or stock complex; descriptions and considerations of the fishing fleet; and management measures.
- **Fish stock:** Species, geographical grouping or other category of fish capable of being managed as a unit. A fish stock may be one or several species.
- **Maximum Sustainable Yield (MSY):** The highest possible catch, usually of a single species, that can be sustainably taken over time by keeping the stock at the level producing maximum growth. MSY depends on environmental conditions, the biology of the stock, and the distribution of catch among fleets.
- **Optimum Yield (OY):** The amount of fish that can be caught of a managed species that will provide the greatest overall benefit to the nation with respect to food production and recreational opportunities. The OY is based on the maximum sustainable yield reduced by any relevant social, economic or ecological factors, and is the ultimate goal for management under the Magnuson-Stevens Act.
- **Overfishing:** When the annual rate of catch is too high to be sustainable. Overfishing reduces the resource and jeopardizes the health of the stock and the long-term stability and profitability of fishing activities.
- **Overfishing Limit (OFL):** The maximum amount of a fish stock that can be caught in a year without resulting in overfishing.
- **Overfished:** When the stock size is too small to ensure sustainable yields in the future. Overfished stocks need to be rebuilt in order to support healthy ecosystems, profitable businesses, and recreational access. In most cases, fishing continues on overfished stocks while they are rebuilding.
- **Rebuilding:** The process of increasing the abundance of a fish stock that is overfished or was overfished to the target stock size that supports sustainable catch. A rebuilt stock is at healthy levels. The Magnuson-Stevens Act mandates that the time to rebuild overfished stocks be "as short as possible," but no more than 10 years unless certain exceptions apply. In practice, over half of stocks in rebuilding plans have timelines over 10 years.
- **Regional Fishery Management Councils:** These eight councils are responsible for the fisheries that require conservation and management in their region. Council members represent the commercial and recreational fishing sectors, in addition to environmental, academic and government interests. Councils write fishery management plans, which are approved (or disapproved) and implemented by NOAA Fisheries.

Key Provisions of the Magnuson-Stevens Act

Provisions	United States Code	Magnuson-Stevens Act
National Standards	16 U.S.C. § 1851(a)(1-10)	Section 301(a)(1-10)
How the regional councils work	16 U.S.C. § 1852	Section 302
Contents of fishery management plans	16 U.S.C. § 1853	Section 303
Annual catch limits and accountability measures to prevent overfishing	16 U.S.C. § 1853(a)(15) 16 U.S.C. § 1852(h)(6)	Section 303(a)(15) Section 302(h)(6)
Rebuilding overfished stocks	16 U.S.C. § 1854(e)	Section 304(e)

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“The greatness of nations is founded on abundant natural resources. The endurance of great nations depends upon how wisely they manage those resources.”

Senator Warren Magnuson



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