

# National Overview



### Management Context

The authority to manage federal fisheries in the United States was granted to the Secretary of Commerce by the Magnuson-Stevens Fishery Conservation and Management Act, also known as the Magnuson-Stevens Act (P.L. 94-265 as amended by P.L. 109-479). Federal fisheries are generally defined as fishing activities that are prosecuted between 3 and 200 nautical miles from the coastline. Generally, individual states retain management authority over fishing activities within 3 nautical miles. The National Marine Fisheries Service (NMFS) is the primary federal agency delegated authority from the Secretary of Commerce to oversee fishing activities in federal waters.

Nationwide, there are 47 fishery management plans that provide a framework for managing the harvest of 230 fish stocks or stock complexes. These fishery management plans or FMPs are developed by Fishery Management Councils in each of eight regions nationwide: the North Pacific, Western Pacific, Pacific, New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and Caribbean regions. Once a FMP is developed, it must be approved by the Secretary of Commerce, in consultation with the NMFS, before it is implemented and enforced.

#### **Regional Fishery Management Councils**

1. North Pacific Fishery Management Council
2. Western Pacific Fishery Management Council
3. Pacific Fishery Management Council
4. New England Fishery Management Council
5. Mid-Atlantic Fishery Management Council
6. South Atlantic Fishery Management Council
7. Gulf of Mexico Fishery Management Council
8. Caribbean Fishery Management Council

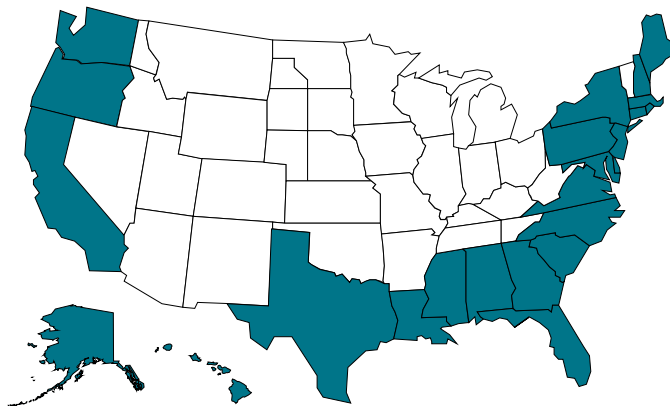
Of the 230 fish stocks and stock complexes currently managed under a FMP, 47 are currently categorized as overfished and 42 are categorized as subject to overfishing.

### *Threatened and Endangered Species*

The National Marine Fisheries Service is the lead agency for the conservation and protection of over 60 fish and

<sup>1</sup>All fishery management plans (FMPs) for each region covered in this Report are listed in their respective sections. The Caribbean region and its four FMPs are not currently covered in this Report, nor is the one FMP for Highly Migratory Species that is developed and managed by the Office of Sustainable Fisheries at NOAA Fisheries Headquarters (Silver Spring, MD).

<sup>2</sup>Generally, a fish stock is equivalent to a single species. Stock complexes, on the other hand, contain multiple species with similar geographic distributions, co-occurrence in fisheries, and life history.



and non-fish species which fall within the purview of the Endangered Species Act (ESA). Status determinations related to the viability and health of these populations have been made and the status of these populations have been determined as “threatened,” or “endangered,” and in one case, “recovered.”

Currently, there are 33 marine and anadromous fish species and subspecies that are protected under the ESA. These species include: Atlantic salmon, chinook salmon, chum salmon, coho salmon, green sturgeon, gulf sturgeon, shortnose sturgeon, smalltooth sawfish, sockeye salmon, steelhead trout, and totoaba. Many of these species are further delineated into “distinct population segments” or “evolutionarily significant units” that are based on genetic similarities within geographically- or reproductively-isolated populations.

In addition to threatened and endangered fish species, the National Marine Fisheries Service is also involved in the conservation and protection of ESA-listed non-fish species. These species include: 20 marine mammals (includes 10 whales, 3 dolphins, 1 porpoise, 5 seals, and 2 sea lions); 8 sea turtles; 3 marine invertebrates (2 corals, 1 abalone); and 1 marine plant. Listed as threatened and endangered in the 1970s, the Eastern North Pacific gray whale has since made a comeback and is currently listed as “recovered.”

### *Market-based Management Tools*

There are several market-based management tools available to fishery managers. These tools include, but are not limited to: individual fishing quota programs (IFQs), community development quotas (CDQs), fishing cooperatives, and sector allocation programs. Collectively, these are

<sup>3</sup>Subspecies includes “distinct population segments” and “evolutionarily significant units,” terms defined under the ESA.

known as limited access privilege programs (LAPPs) or LAPP-like programs.<sup>4</sup>

Limited access privilege programs assign harvest privileges to individuals or groups. These harvest privileges are used or transferred (that is, sold or leased) to those who can use them more beneficially. Currently, there are 13 such programs nationwide in six different regions. In total, the ex-vessel value of these fisheries was greater than \$730 million in 2007, 18% of the total ex-vessel value for all U.S. commercial fisheries. In addition, there are six LAPP and LAPP-like programs anticipated within the next few years.

#### Existing LAPP and LAPP-like Programs (2007)

Program	First Year	Ex-vessel Value (\$ million)
Surfclam/ocean quahog IFQ	1990	\$49.0
South Atlantic wreckfish IFQ	1992	\$0.3
Western Alaska CDQ	1992	\$68.0
AK halibut/sablefish IFQ	1995	\$237.0
Pacific whiting cooperative	1997	\$21.8
Bering Sea pollock cooperatives	1998	\$266.0
Pacific sablefish permit stacking	2001	\$6.4
AK scallop cooperative	2001	\$1.0
Georges Bank hook sector	2004	\$0.6
AK crab rationalization (IFQ & cooperative)	2005	\$65.0
Georges Bank fixed gear sector	2006	\$0.9
Gulf of Mexico red snapper IFQ	2007	\$9.0
Central Gulf of Alaska rockfish pilot sector	2007	\$8.5

Ecolabels are another market-based management tool available to fishery managers. An ecolabeling scheme entitles a fishery product to bear a distinctive logo or statement which certifies that the fishery resource was harvested in compliance with specified conservation and sustainability standards. This ecolabel is intended to inform the consumer or purchaser of the fishery product of this compliance. It allows the consumer to potentially influence the sustainable harvest of fishery resources through the purchase of such ecolabeled seafood products.

The Marine Stewardship Council (MSC) has one of the most recognizable ecolabeling schemes in the world. There are currently 34 international fisheries that meet MSC sustainability standards.<sup>6</sup> Of these, nine are U.S. fishery products.

<sup>4</sup>For more information about LAPP and LAPP-like programs, please see Excess Harvesting Capacity in U.S. Fisheries, A Report to Congress listed in the Sources section of this Report.

<sup>5</sup>Currently, only the Western Pacific and Caribbean regions do not have LAPP or LAPP-like programs in place.

<sup>6</sup>For more information about MSC certified fisheries, please go to: <http://www.msc.org/track-a-fishery/certified>.

#### U.S. Fishery Products with MSC certification

Region	Fishery	Certified
North Pacific	Alaska salmon	Sept 2000; Nov 2007
North Pacific	Bering Sea/Aleutian Islands pollock	Feb 2005
North Pacific	Gulf of Alaska pollock	April 2005
North Pacific	Bering Sea/Aleutian Islands Pacific cod	Feb 2006
North Pacific	North Pacific halibut	April 2006
North Pacific	North Pacific sablefish	May 2006
Western Pacific	Pacific albacore tuna - north (American Albacore Fishing Association)	Aug 2007
Western Pacific	Pacific albacore tuna - south (American Albacore Fishing Association)	Aug 2007
Pacific	Oregon pink shrimp	Dec 2007

#### Other Fishery Management Tools

Vessel buyback programs are another tool used by fishery managers. The intent of a buyback program is to ease fishing-related pressure on marine resources by limiting fishing effort. That is, fishing vessels are purchased by the government or by the fishing industry itself, and then removed from a specific fishery where fish stocks or stock complexes are overfished or subject to overfishing. To date, there have been ten buyback programs instituted nationwide. Seven<sup>7</sup> of these buybacks cost a total of \$397 million; 85% of this was funded by the commercial fishing industry.

#### Buyback Programs in the U.S. (1995-2007)

Program	Year	Buyback amount (\$ million)	Govt funding (\$ million)
Northwest Pacific salmon disaster	1994 1995 1998	NA	NA
Northeast multispecies	1995 1996 2002	\$1.89 \$22.5 \$10.0	\$1.89 \$22.5 \$10.0
Bering Sea/Aleutian Islands (BSAI) pollock	1998	\$90.0	\$15.0
Pacific Coast groundfish	2003	\$45.7	\$10.0
BSAI crab	2004	\$97.4	NA
AK BSAI groundfish freezer longliners	2007	\$35.0	NA

<sup>7</sup>This total excludes three buyback programs associated with Northwest Pacific salmon disasters in 1994, 1995, and 1998; data was not available at time of printing.

## U.S. Summary

License limitation programs, also known as limited entry programs, are another management tool available to fishery managers. In these programs, the number of fishing vessels allowed to harvest a specific fish stock or stock complex is limited, rather than simply open to whoever might be interested in fishing. License limitation programs are more common than buyback programs, LAPP, or LAPP-like programs, and are implemented in every region except the Caribbean.

### Commercial Fisheries

In 2006, landings by fishermen in the U.S. (9.5 billion pounds) had an ex-vessel value of \$4.1 billion. Top revenue-makers were shrimp (\$456 million), walleye pollock (\$429 million), American lobster (\$395 million), sea scallops (\$385 million), and Pacific salmon (\$312 million). These five species and species groups generated \$2.0 billion in 2006, accounting for almost 50% of total landings revenue. Shellfish and finfish and other fishery products each accounted for approximately half of total landings revenue annually.

#### Key U.S. Commercial Species

Commercially-important species and species groups in the U.S. include: blue crab, Pacific halibut, American lobster, menhaden, walleye pollock, sablefish, Pacific salmon, sea scallops, shrimp, and tunas.

### Economic Impacts

The U.S. commercial fishing industry is defined for this report as the commercial harvest sector, seafood wholesalers and distributors, seafood processors and dealers, and seafood retailers. Overall, this industry generated over \$103 billion in sales and \$44.3 billion in income, and supported over 1.5 million jobs in 2006. The commercial fishing-related retail sector contributed the most to sales (58%), income (63%), and employment (75%) impacts relative to the other three sectors. The other three sectors reported the following sales impacts: seafood wholesalers and distributors, \$19 billion or 19%; seafood processors and dealers, \$14.9 billion or 15%; and commercial harvesters, \$9.1 billion or 9%.

### Landings Revenue

Overall, ex-vessel revenue increased 15% from \$3.6 billion in 1997 to \$4.1 billion in 2006, a 3% decrease when adjusted for inflation. Finfish and other fishery products increased 8% (-8.3% in real terms) to \$2.0 billion in 2006, while shellfish increased 21% (2.7% in real terms) to \$2.1 billion. Finfish and other fishery products and shellfish

contributed equally to ex-vessel revenue throughout the 10 year period.

The ten key species and species groups comprised an average of 61% of ex-vessel value in the U.S. In 2006, American lobster, shrimp, sea scallops and walleye pollock contributed more to total landings revenue than any other key species or group, accounting for 10%, 11%, 9%, and 10%, respectively. Notably, sea scallop revenues increased 330% (264% in real terms) between 1997 and 2006. Large increases in ex-vessel revenue also occurred for Pacific halibut (67% nominally, 41% in real terms), walleye pollock (66% nominally, 40% in real terms), and American lobster (46% nominally, 23% in real terms). A small increase in ex-vessel price for Pacific salmon was also observed (4% nominally, -12% in real terms).

#### Commercial Fish Facts

##### Landings revenue

- On average, the ten key species or species groups accounted for 61% of the total landings revenue.
- Finfish and other fishery products and shellfish generally contributed equally to landings revenue in the U.S.: over \$2 billion each in 2006.
- Walleye pollock accounted for 21% of finfish landings revenue in 2006, while shrimp, American lobster, and sea scallops contributed 22%, 19%, and 18% of shellfish revenue, respectively.
- The largest annual increase in revenue from 1997-2006 was 66% for Pacific halibut (1998-1999). The largest annual decrease in revenue was -44% for sablefish (1997-1998).

##### Landings

- On average, the ten key species or species groups accounted for 65% of total landings annually.
- Finfish and other fishery products accounted for 87% of annual landings for the U.S. Walleye pollock and menhaden contributed the most to finfish landings, 36% and 20%, respectively.
- These two species also had the highest average annual landings of any species or group: 3.0 billion pounds for walleye pollock and 1.7 billion for menhaden.
- Sea scallop landings increased 82% from 1998-1999, the largest annual increase in the 10 year period. Tunas had the highest annual decrease in landings, falling 29% from 1998-1999.

##### Prices

- Sea scallops at \$5.40, American lobster at \$3.80, Pacific halibut at \$1.89, and sablefish at \$1.87 had the highest average price per pound for the 1997-2006 period.
- Menhaden and walleye pollock had the lowest average ex-vessel prices, \$0.06 and \$0.10 per pound, respectively, during this period.
- The largest annual decrease in ex-vessel price was -40% for Pacific halibut (1997-1998), only to increase 58% the following year, the largest annual increase.

Double digit declines in ex-vessel revenue were observed for five of the top ten key species or groups: menhaden (-44% nominally, -53% in real terms), blue crab (-27% nominally, -39% in real terms), tunas (-21% nominally, -34% in real terms), shrimp (-20% nominally, -33% in real terms), and sablefish (-10% nominally, -24% in real terms).

### Landings

From 1997 through 2006, total landings averaged 9.5 billion pounds annually, ranging from 9.1 billion pounds (2000) to 10.0 billion (1997). Finfish and other fishery products contributed an average of 87% annually to total landings in the U.S. Total landings, landings from finfish and other fishery products, and shellfish landings, all decreased between 1997 and 2006: -5%, -4%, and -6%, respectively.

Landings of sea scallops increased 333% between 1997 and 2006, from 13.6 million pounds to over 59 million pounds. Landings for other species or groups also increased but less dramatically: walleye pollock (33%), Pacific salmon (18%), American lobster (12%), and shrimp (10%). Landings of tunas, menhaden, blue crab, sablefish, and Pacific halibut all declined during this period.

Landings of walleye pollock and menhaden contributed more to total U.S. landings than any other species or group. Over 3.4 billion pounds of walleye pollock was landed in 2006, contributing 36% of total landings. Menhaden landings were over 1 billion pounds in 2006, contributing 14% to total landings.

### Prices

Between 1997 and 2006, ex-vessel prices for high value species such as sea scallop (\$6.52 per pound, 2006) remained flat (-16% in real terms), while prices for American lobster (\$4.27 per pound, 2006) increased 30% (10% in real terms). Ex-vessel price for Pacific halibut (\$2.83 per pound, 2006) increased more than any other species or group: 70% (43% in real terms) between 1997 and 2006. Tunas (32% nominally, 12% in real terms) and walleye pollock (25% nominally, 5% in real terms) experience double digit increases during this period. Of the other key species or groups in the U.S., only shrimp (27% nominally, -39% in real terms), menhaden (-17% nominally, 30% in real terms), and Pacific salmon (-12% nominally, -26% in real terms) experienced price declines.

Most key species or species groups had higher ex-vessel prices in 2006 compared to their corresponding average ex-vessel price for the time period. Ex-vessel price for Pacific halibut was \$2.83 per pound in 2006, 49% higher than the average price (\$1.89 per pound). Walleye pollock had an ex-vessel price of \$0.13 per pound in 2006, which was 23% higher than the average price (\$0.10 per pound).

In contrast, shrimp had an ex-vessel price of \$1.36 per pound (2006) compared to an average \$1.64 per pound, an 18% decrease.

### Recreational Fishing

Across the U.S., there were 13.6 million recreational anglers in 2006. These anglers took 87 million saltwater fishing trips around the country, spending \$5.8 billion on fishing trips and \$25.6 billion on durable fishing-related equipment. These expenditures contributed \$82 billion in sales to the U.S. economy, supported over 500,000 jobs, and generated \$38.1 billion in value-added impacts.

#### Key U.S. Recreational Fishing Species

In the U.S., recreationally-important species and species groups include: striped bass, Atlantic croaker, spot, seatrouts, summer flounder, Alaskan halibut, little tunny and Atlantic bonito, Pacific rockfishes and scorpionfishes, salmon, sharks, and large Atlantic tunas.

### Participation Rates<sup>8</sup>

There were more recreational anglers in 2006 than in any other year from 1997-2006: 13.6 million anglers in the U.S. This was a 53% increase from the 8.9 million anglers who fished in 1997. The majority of anglers in all years were coastal county residents. These anglers comprised 89% of total anglers on average, with their numbers increasing 46% between 1997 and 2006. The number of anglers from non-coastal counties increased 118% between 1997 and 2006. Participation in both groups peaked in 2006.

### Recreational Fishing Trips<sup>9</sup>

In 2006, over 87 million fishing trips were taken, a 27% increase from the 69 million trips in 1997. Private/rental boat trips accounted for 50% of total trips or 43 million trips in 2006. Shore-based fishing trips numbered 40 million (46% of total trips). Fewer fishing trips were taken on a charter or party boat with just over 3.8 million trips taken (4% of total trips).

From 1997-1998, there was a 23% decrease in the number of party/charter fishing trips taken, a drop from 5.0

<sup>8</sup>Participation estimates do not include Alaska and Texas. Hawaii is included for 2003-2006; Pacific coast states are included for 2003-2006. Numbers include the Caribbean for 2000-2006.

<sup>9</sup>Effort numbers do not include Alaska and Texas. They include Hawaii only for 2003 to 2006. California numbers were estimated differently from 2004 to 2006.

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million to 3.9 million. This decrease was the largest annual decrease for any of the three types of fishing trips from 1997-2006. The largest annual increase in the number of fishing trips taken in any of the three types of trips was a 41% increase in shore-based trips (1999-2000).

### Recreational Fishing Facts

#### Participation

- There were 13.6 million anglers in the U.S. in 2006. Of these, 11.9 million anglers were coastal county residents and 1.8 million were from non-coastal counties.

#### Recreational trips

- In 2006, the Gulf of Mexico and South Atlantic regions had the highest number of total fishing trips taken in the U.S. There were 23.9 million trips taken in the Gulf and 23.8 million trips taken in the South Atlantic.
- Private/rental boat trips accounted for the majority of fishing trips taken in New England (49%), the Mid-Atlantic (57%), and the Gulf (58%) regions, relative to shore-based and party/charter boat trips.
- Shore-based trips accounted for the majority of fishing trips taken in the South Atlantic (57%), Pacific (65%), and Western Pacific (78%) regions.

#### Economic impacts

- In 2006, shore-based fishing trips contributed the most to the U.S. economy relative to the other two types of fishing trips. Shore trips generated \$5.7 billion in total sales and \$3.0 billion in value-added impacts.
- Shore-based fishing trips were closely followed by private boat trips (\$5.6 billion in total sales and \$2.8 billion in value-added impacts) and party/charter fishing trips (\$2.3 billion in total sales and \$1.3 billion in value-added impacts).
- The Gulf region had the highest angler expenditures in 2006: \$16.2 billion in total fishing-related expenditures.

#### Catch data for key species

- The species or group most often caught by recreational anglers in 2006 were seatrouts and Atlantic croaker and spot, with over 52,000 and 43,000 fish caught, respectively.
- The least often caught species or group were tunas (large Atlantic species) and Alaskan halibut with 707,000 and 816,000 fish caught, respectively.

### Expenditures and Economic Impacts

In 2006, U.S. recreational anglers spent a total of \$5.8 billion on fishing trip expenditures. Private/rental boat trip expenditures were \$2.5 billion, shore trips totaled \$2.4 billion, and for-hire fishing trips totaled \$934 million. Durable fishing-related equipment expenditures totaled \$25.6 billion in 2006. Boat expenses contributed the most to this total with \$9.3 billion spent. Vehicle-related expenditures followed with \$7.0 billion with \$5.4 billion

spent on second home expenses and \$3.0 billion spent on fishing tackle.

Economic impacts from recreational angling were over \$82 billion in sales and \$38 billion in value-added impacts, generating over 500,000 jobs nationwide. Economic impacts related to durable equipment contributed \$69 billion in sales, \$31 billion in value-added impacts, and over 425,000 jobs. Shore-based and private boat fishing trips accounted for the majority of trip-related economic impacts. Shore-based trips contributed \$5.7 billion in sales, \$3.0 billion in value-added impacts, and generated 47,000 jobs. Private boat trips contributed \$5.6 billion in sales, \$2.8 billion in value-added impacts, and generated 41,000 jobs.

### Recreational Catch and Release

The key recreational species or groups caught by anglers varied by geographic location. On the East and Gulf Coasts, seatrouts were the most widely caught species group with 53 million caught in 2006, a 34% increase from 39 million caught in 1997. Atlantic croaker and spot were also caught in large numbers with catch increasing 22% between 1997 and 2006. Sharks and striped bass had the highest increase in catch between 1997 and 2006, with shark catch increasing 208% and striped bass increasing 64%. In contrast, rockfishes and scorpionfishes, and salmon had the highest decreases in recreational catch, 24% and 8%, respectively.

### The Marine Coastal Economy

In 2005, the gross domestic product for the U.S. was \$12.4 trillion, a 43% increase from \$8.7 trillion (1998). There were 7.5 million establishments nationwide that employed over 116 million employees. These establishments generated an annual payroll of \$4.5 trillion.

For this report, the Marine Coastal Economy – a subset of the National Economy – is comprised of two industry sectors: 1) Seafood Sales & Processing (employer establishments and non-employer firms) and 2) Transport, Support, and Marine Operations (employer establishments). These sectors are comprised of several different marine-related industries. The following sections discuss the contribution of these industries in terms of the number of establishments or firms, employees, and annual payroll or receipts.

### Seafood Sales and Processing

In 2005, there were over 2,098 non-employer firms in the seafood retail industry, a 10% decline from 2,340 firms in 1998. Annual receipts increased 8% (-4% in real terms) from \$188 million (1998) to \$203 million (2005).

In contrast to non-employer firms, the number of employer establishments increased 22% from 1,772 (1998) to 2,155 establishments (2005). Employee numbers (10,381, 2005) and annual payroll (\$195 million, 2005) also increased 32% and 60% (42% in real terms), respectively.

The number of non-employer firms engaged in seafood processing increased 75% from 617 in 1998 to over 1,000 in 2005. Annual receipts also increased from \$49 million (1998) to \$79 million (2005), a 62% increase (43% in real terms).

Employer establishments engaged in seafood processing activities declined 14% between 1998 and 2005. The number of people employed in this industry also declined 14%. However, annual payroll increased from \$956 million in 1998 to \$1.2 billion in 2005, a 23% increase (9% in real terms).

Seafood wholesale industries in this sector showed trends similar to seafood processing industries. The number of employer establishments declined 25% from over 3,000 (1998) to 2,314 establishments (2005). The number of people employed also declined, showing a 17% drop in employees between 1998 and 2005. Annual payroll increased modestly from \$736 million (1998) to \$781 million (2005), a 6% increase (-6% in real terms).

### ***Transport, Support, and Marine Operations***

In the transport, support and marine operations sector, the ship/boat building and marina industries had the highest number of establishments in 2005: 1,800 and 4,100, respectively. The ship/boat building industry also employed the majority of people in this sector, over 141,000 employees or 51%. The marine cargo handling industry followed, employing 60,000 people in 2005.

The ship/boat building industry also reported the highest annual payroll in 2005, \$5.7 billion or 45% of annual payroll for this industry sector. This industry was followed by marine cargo handling (\$3.0 billion) and coastal/Great Lakes freight transportation (\$1.2 billion).

The largest increase in employer establishments between 1998 and 2005 occurred in the port and harbor operations industry. The largest decline in establishments was 11%, a decline seen in both the number of marine cargo handling industries and navigational services to shipping industries.

The number of employees increased 33% for the marine cargo handling industry, from almost 45,000 (1998) to 60,000 employees (2005). This increase was the largest between 1998 and 2005. The largest decline in employee numbers was seen in the deep sea freight transportation

industry. The number of employees dropped from 19,800 in 1998 to 11,400 in 2005, a 43% decline.

Marine cargo handling and marina industries showed the largest increases in annual payroll between 1998 and 2005: 49% for both industries. The largest decline in annual payroll was seen for deep sea freight transportation, declining 16% from \$960 million (1998) to \$802 million (2005).