Sustaining and Rebuilding

NOAA FISHERIES
2002 REPORT TO CONGRESS

The Status of the U.S. Fisheries

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Sustainable Fisheries

April 2003

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As mandated by the Sustainable Fisheries Act amendments to
the Magnuson-Sevens Fishery Conservation and Management Act of 1996

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Cover photo: White grunts, Florida Keys National Marine Sanctuary, Key Largo, Fla. Photo courtesy of Andrew Bruckner, NMFS

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A MESSAGE FROM THE ASSISTANT ADMINISTRATOR FOR FISHERIES, NOAA

Welcome to the NOAA Fisheries' report on the status of the U.S. fisheries for 2002!

Successes and Challenges

This report documents another year of successes and challenges for NOAA and the eight regional Fishery Management Councils. Together, we have been working to implement the goal of sustainable fisheries as envisioned by Congress with the passage of the Sustainable Fisheries Act (SFA) in 1996. Since the passage of the SFA, NOAA has made significant progress in our scientific knowledge of marine fisheries and in our ability to manage these resources. The SFA reinvigorated efforts to prevent the overfishing of our stocks and to rebuild those that are depleted.

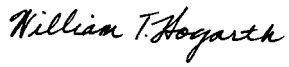
Most of our overfished stocks have rebuilding plans in place. NOAA Fisheries is working with the Councils to continue to rebuild these stocks to levels consistent with producing the long-term maximum sustainable yield. This year's report documents the consistent progress of our efforts to achieve the SFA goals as some stocks show remarkable progress. For example, Gulf of Maine/northern Georges Bank silver hake in the Northeast region has been successfully rebuilt. Resilient stocks continue to benefit from management absent of a formal rebuilding plan. For example, the northern stock of red hake, although never formally required to have a rebuilding plan, has rebuilt to 165 percent of its target biomass level.

Looking Back, Moving Forward

Removing a stock from the list of overfished species is always an important milestone. Yet since stocks are added and dropped from the list of overfished stocks for a variety of reasons, simply removing them from the list is only part of the story. A stock should be removed because real biological improvements in the stock have been made to consider that stock fully rebuilt and healthy. This year, we've paused to look back at the changes in each stock's status over the past five years, and to look at the reasons for the changes. Our management efforts have been successful and the general biological trends for our nation's stocks have been positive. Our nation's fisheries are moving in the right direction.

Yet challenges still lie before us. Many valuable stocks remain overfished. Some rebuilding plans have rebuilt stocks to the point where they are no longer considered overfished, yet are not at their final goals. Still other overfished stocks do not have SFA rebuilding plans in place for a variety of reasons, such as those managed under the Endangered Species Act or by our state partners. NOAA Fisheries is currently working with several Councils to refine a number of previously approved rebuilding programs to achieve better the intent of the SFA.

With continued dedication and diligence, the goals of the SFA are within reach. NOAA Fisheries continues to be committed to being transparent, timely, and effective in its responsibilities as stewards of our marine fishery resources.



William T. Hogarth, Ph.D.

EXECUTIVE SUMMARY

This report serves to describe the state of our nation's fisheries and the effectiveness of fisheries management under the Magnuson-Stevens Fishery Management and Conservation Act (MSA) as amended in 1996 by the Sustainable Fisheries Act (SFA). Under the SFA, Congress provided fisheries managers with rigorous management standards to address better human impacts on the environment. The SFA placed critical emphasis on the need to end overfishing, rebuild overfished stocks, and establish management plans designed to ensure biologically and economically sustainable fisheries. A stock that is above an established fishing mortality (harvest) rate is said to be subject to overfishing. A stock that is below its prescribed biological threshold is considered overfished.

"The Secretary shall report annually to the Congress and the councils on the status of fisheries within each council's geographic area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished."

-Section 304(e)(1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act (SFA) of 1996

Since the passage of the SFA, significant progress continues to be made in our scientific knowledge of marine fisheries and in our ability to manage for the sustained use of these resources based on that knowledge. This report responds to the Congressional requirement for an annual report on the progress of addressing overfishing and rebuilding overfished fisheries in the United States to gauge the effectiveness of the SFA.

This report on the Status of the U.S. Fisheries, 2002, is the sixth annual report of its kind. It identifies 932 marine fish stocks in the U.S. Exclusive Economic Zone (EEZ), an area that extends from three to 200 miles offshore and covers more than 2 million square miles, including those stocks that straddle international boundaries and highly migratory stocks. The report contains many changes since 2001, reflecting the dynamic nature of fisheries science and management, and documenting the progress being made over time through improved methodologies. In response to

the Congressional requirement, the report examines stocks according to their individual status and answers several questions to help gauge the effectiveness of the SFA provisions:

1. Is a stock determined to be subject to *overfishing*?
2. Is a stock determined to be *overfished*?
3. How do this year's determinations compare to previous years?
4. How many rebuilding programs have been approved, and what is the status of those not yet approved?

Summary

Although some stocks remain overfished, the general biological trend in biomass for the status of the nation's stocks continues to be positive. In 2002, the nation's fish stocks continued the progress begun in 1999 after SFA's strengthened management tools were more fully implemented. This year, another major[1] stock was declared fully restored under its rebuilding plan - Gulf of Maine/northern Georges Bank silver hake in the Northeast **(discussed on page 10)**. In addition, the ability of a fishery management plan (FMP) to benefit other stocks not included under its management regime is exemplified by the northern Georges Bank/Gulf of Maine red hake stock which attained levels exceeding the average biomass associated with maximum sustainable yield, due, in part, to management measures implemented for other fisheries **(discussed on page 9)**.

Over the period 1997-2002, overfishing has been corrected a total of 26 times, and stocks have been rebuilt above their biomass thresholds a total of 20 times. Although the reverse has also occurred (in 14 cases, overfishing has been initiated and in 13, a stock has become overfished), the net result has been positive and includes several important stocks **(discussed on page 21)**.

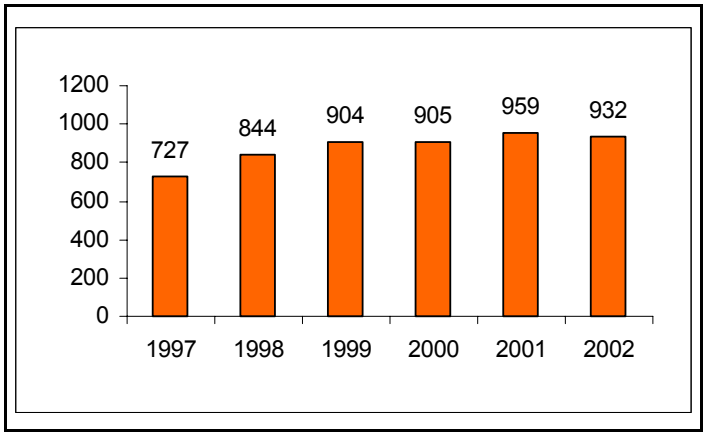


Figure 1. Number of stocks highlighted in each report.

Identified Stocks

The number of stocks covered by the annual report is one of the changing variables demonstrative of the dynamic and evolving nature of fisheries science and management. Since 1997, the total number of stocks on which we have reported has gradually risen to a high of 959 in 2001, and then decreased to 932 in 2002 [**Figure 1**]. Stocks are added

[1] A "major" stock is a stock that has 200,000 pounds or more of landings in 2001 (with some exceptions, see page 5).

and deleted from the report for a variety of reasons. In 2002, several stocks that were listed with the Bering Sea and Aleutian Islands fisheries yet are generally not found in that area were removed from this year's report. For other stocks, amendments to FMPs, new FMPs, or shifts in management responsibilities (e.g., to the states) resulted in additions and deletions. As new information about our nation's marine ecosystems increases and methodologies related to how stocks are identified and managed under FMPs continue to change over time, the number of stocks included in future reports will reflect those changes.

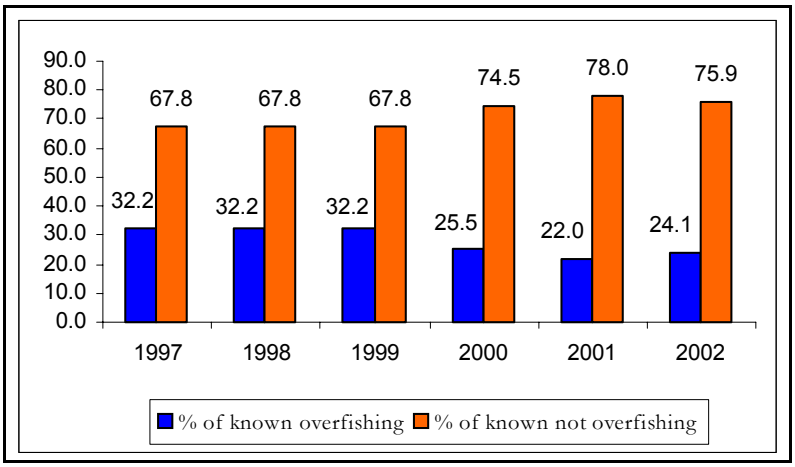


Figure 2. Overfishing status for stocks of known status, 1997-2002.

Overfishing and Overfished

The results this year emphasize the need to examine the data carefully. The proportion of stocks not subject to *overfishing* is down, relative to the 2001 report, as is the proportion of stocks that are not *overfished* [**Figures 2 and 3**]. However, many stocks are showing continued growth toward rebuilding [**Figure 4**].

While it may seem counterintuitive that stocks show continued growth in light of these changes in proportions, it is important to keep the numbers in context and to look at the *reasons* behind the changes. Because many types of changes occur from one report to the next, comparing one year's results with previous year is difficult. Thus, this year's report includes, for the first time, a retrospective analysis of yearly stock-by-stock changes in status from 1997 to the present (**discussed on page 21**).

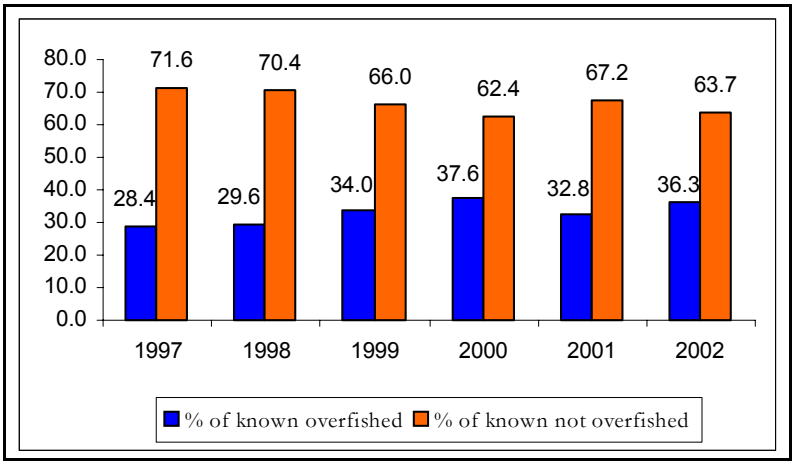


Figure 3. Overfished status for stocks of known status, 1997-2002.

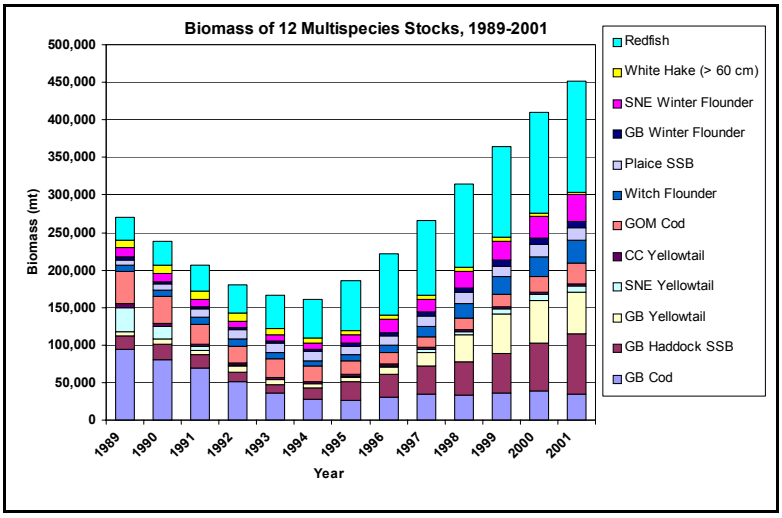


Figure 4. Changes in Northeast groundfish biomass levels (courtesy of NEFMC).

Rebuilding

As noted above, rebuilding programs continue to result in significant gains in stock biomass levels (**discussed on page 12**). NOAA Fisheries has rebuilding programs approved or in development for most of the 86 overfished stocks. In 2002, the total number of approved programs stood at 75 [**Figure 5**], including 33 rebuilding programs currently in place for overfished major stocks and 37 for overfished minor stocks. An additional 4 programs are approved for major stocks that are not overfished but must continue to rebuild to the average level associated with maximum sustainable yield, and 1 major stock has an undefined rebuilding target. In some cases, particularly Atlantic highly migratory species, rebuilding programs have been approved, but not yet implemented pending adoption of an international rebuilding regime.

Several stocks are reported as overfished for the first time in this report, including Pacific whiting and yelloweye rockfish in the Northwest region and southern New England/mid-Atlantic windowpane flounder in the Northeast region. These stocks will require rebuilding plans[2]. NOAA Fisheries also is currently working with several Councils to refine a number of previously approved rebuilding programs to achieve better the intent of the SFA.

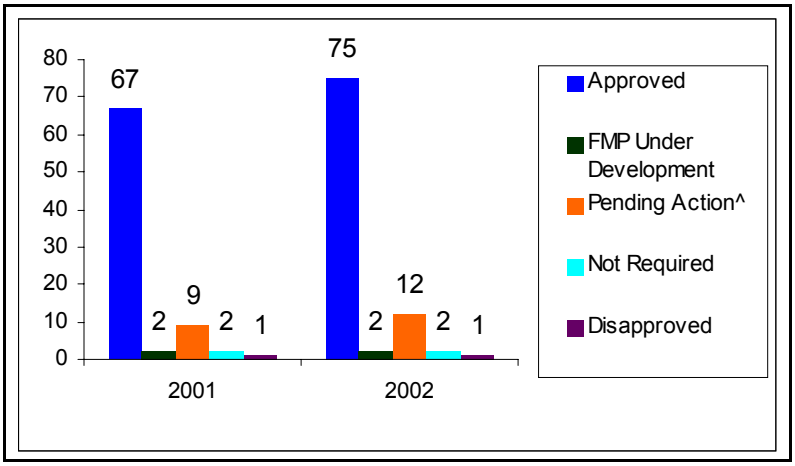


Figure 5. Status of rebuilding plans for overfished stocks, 2001-2002.
^ Under development or not yet submitted.

[2] Although Atlantic pollock is also newly listed, it was found to be not overfished after the August 1, 2002, cutoff date for this report.

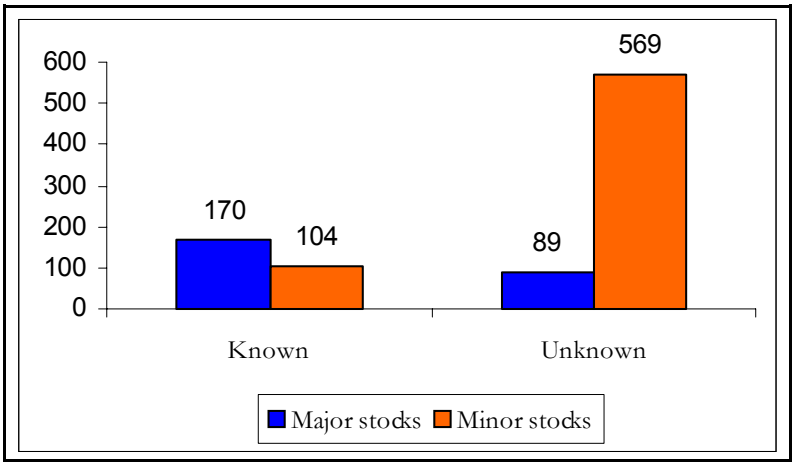


Figure 6. Number of stocks of known and unknown overfishing determination, 2002.

What is Really Known and Unknown

This year, as with last year's report, stocks are classified as major (those with harvested landings of 200,000 pounds and over) or minor (landings less than 200,000 pounds) (**discussed on page 5**). This distinction is an effort to interpret more accurately the data and characterize stock status, particularly with regards to whether that status is known or unknown, as well as to place the results in the context of current management priorities.

When viewed with this level of detail for 2002, of the 658 stocks whose overfishing status is currently *unknown*, only 89 stocks or 14 percent are characterized as major; of the 274 stocks whose overfishing status is *known*, 170 stocks, or 62 percent, are major stocks [**Figure 6**]. Of the 695 stocks whose overfished status is currently *unknown*, only 99 stocks or 14 percent are characterized as major; of the 237 stocks whose overfished status is *known*, 160 stocks, or 68 percent, are major stocks [**Figure 7**]. Major stocks accounted for approximately 99 percent of the landings in 2001.

While minor stocks are important in an ecosystem context, these stocks have not merited the same level of priority given to stocks that are actively harvested. As a consequence, these stocks have often not been surveyed to determine their status commensurate with the requirements of this report, thus their status is *unknown* in most cases. Presenting the information about these non-target stocks in the same manner as stocks under directed fisheries has proven confusing to the merits and intent of this report. This report serves to assess the effectiveness of the SFA to eliminate and prevent overfishing and rebuild healthy fish stocks.

NOAA Fisheries does not routinely assesses the status of many of the 932 fish stocks because generally they are not targeted in fisheries and have a low probability of becoming overfished

NOAA Fisheries has undertaken an aggressive plan of action to improve its ability to assess more of the 932 fish stocks that are identified and referenced in federal fishery management plans. To begin implementation of this plan, titled *Marine Fisheries Stock Assessment Improvement Plan*, NOAA Technical Memorandum, NMFS-F/SPO-56 (October

2001), the agency received an increase of $15 million in fiscal year (FY) 2003 and has requested additional funding for FY 2004. NOAA Fisheries does not routinely assesses the status of many of the 932 fish stocks because generally they are not targeted in fisheries and have low probability of becoming overfished. Based on a ranking system, the *Marine Fisheries Stock Assessment Improvement Plan* shows that stocks with the longest history of catches or value rank high for having the best data collection programs and the most comprehensive assessments. This ranking system shows that NOAA Fisheries is prioritizing its allocated research dollars to conduct status determinations for those species most vulnerable to overfishing. The plan also indicates that modernization of stock assessments will require significant additional staff, some of which could be filled through cooperative research programs and other partnerships.

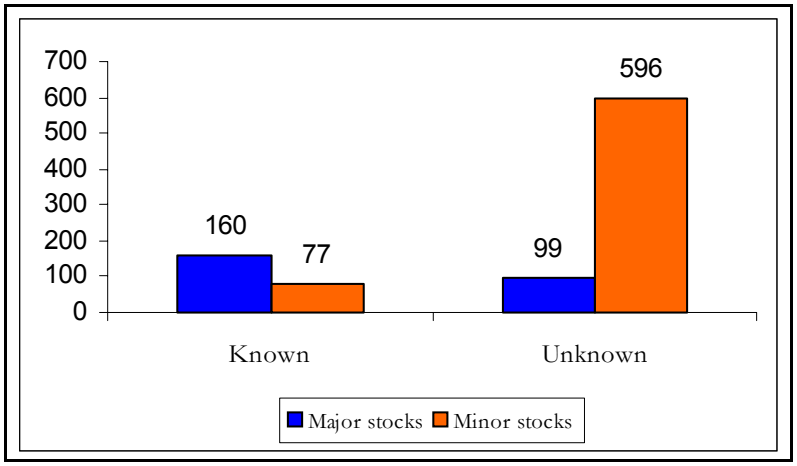


Figure 7. Number of stocks of known and unknown overfished determinations, 2002.

This report outlines the state of the nation's fisheries and provides an update on the progress of rebuilding plans as of August 1, 2002. It provides Congress and the public with a comprehensive summary of how, with the eight Regional Fishery Management Councils (Councils), NOAA Fisheries is working to ensure that the nation's fisheries are robust and productive for the long-term. This is the sixth annual report on the status of U.S. fisheries since 1997.

Historical Review

The first Status of the U.S. Fisheries report was released in 1997, just one year after passage of the SFA required key revisions in the way *overfishing* and *overfished* should be defined and calculated in all of the nation's FMPs. In the early reports, NOAA Fisheries used existing overfishing definitions in the FMPs that were based either on the rate of fishing mortality (overfishing) or the size of the stock (overfished), but seldom both. In fact, most pre-SFA definitions were based on fishing mortality alone.

Definitions

Overfished	**A stock size that is below a prescribed biomass threshold**
Overfishing	**Harvesting at a rate above a prescribed fishing mortality threshold**
Known	**A recent assessment provided enough information with which to make a determination**
Unknown	**No recent assessment was conducted or insufficient information about this stock exists to make a determination**
Major	**Total landings in 2001 (commercial and recreational) equals or exceeds 200,000 pounds**
Minor	**Total landings in 2001 are less than 200,000 pounds**

For definitions of biological terms, see Appendix 6.

By the 2000 report, many of the overfishing definitions in FMPs had been amended to conform to the SFA. The revised FMPs included status determination criteria based on both threshold fishing mortality rate and biomass components. Both the 2000 and 2001 reports reflected determinations for overfished and overfishing; i.e., the determination that a stock was *overfished* was based on whether the size of the biomass was above its threshold, and the determination of whether *overfishing* was occurring was based on whether the fishing mortality rate was below its threshold. This basis of determination continues in this report.

Using the Best Available Data

NOAA Fisheries reviewed each stock in this report relative to status determination criteria using the best available, most current, scientific information. Based on this information, for each stock, it was determined:

- Whether the stock is subject to overfishing;
- Whether the stock is overfished; or
- Whether it is approaching an overfished condition.

NOAA Fisheries used many resources to make these determinations, including final, reviewed documents such as Stock Assessment Review Committee reports and recommendations of each Council's Science and Statistics Committee. Since some stocks are assessed infrequently (as many as five years between assessments), the year of the most recent assessment for the stock is provided. Also included is the last year of data used in that assessment (i.e., the assessment using data through a particular year). Since some species are not included in a federal FMP (i.e., species managed by an interstate marine fisheries commission, individual states, or international agreement), the stock status determination was made using other official sources of information, as adopted in accordance with the relevant FMP.

Listing of Stocks

With a few exceptions, a substantial portion of a domestic stock must occur within the EEZ for it to be identified in this report. Listing in this report is based on the presence/absence of the stock in the EEZ, rather than the area from which the most landings occur. Some notable exceptions to the "substantial portion" requirement include highly migratory species and transboundary stocks, as well as species in the U.S. Caribbean where many managed species are harvested inshore of the EEZ. In addition, many species are included for which there is little directed fishing, and thus, little known on the dynamics of the populations.

Most stocks in this report are managed under a Council or joint Council FMP. There are 42 federal FMPs in effect, six under development, one that has been approved but not yet implemented, and several other fisheries in the EEZ that are managed by a non-federal FMP. Stocks managed under a non-federal FMP are generally managed by the states through the interstate marine fisheries commissions. The states also aid in achieving the goals of some federal FMPs. For example, the Atlantic States Marine Fisheries Commission implements compatible management measures in state waters under the joint Mid-Atlantic Council/Commission *Summer Flounder, Scup, and Black Sea Bass FMP*, thereby applying comprehensive management throughout the range of these species.

Some FMPs contain only one or a few stocks in the management unit, while others contain more than 100 stocks. To the extent possible, reports on individual stocks for each fishery or FMP are provided separately.

Newest Fishery Management Plan

On June 15, 2002, NOAA Fisheries approved the newest FMP, the Western Pacific Council's *Coral Reef Ecosystems FMP*. However, this FMP has not yet been implemented and is not included in this report. The stocks identified in the management unit represent over 140 individual species taken in both directed and incidental fisheries, including the aquarium trade. All of the stocks in this FMP would be categorized as minor under the current definition in this report, with the exception of mackerel scad and bigeye scad. These 2 stocks appeared in last year's report as species in an FMP under development and are major, based on 2001 landings. However, because they are part of the new *Coral Reef Ecosystems FMP*, they have been removed from this year's report. These two species will be listed individually to the extent required next year as part of the inclusive listing of all of the stocks in that FMP. The status of mackerel scad and bigeye scad had previously been listed as *unknown*.

Additional Changes to Stock Listings

- A new *Deepsea Red Crab FMP* was added for the Northeast, listed previously as under development.
- Pink Salmon, chum salmon, sockeye salmon, and steelhead (all previously listed in the *West Coast Salmon FMP*) were added to the table *Stocks not contained in federal FMPs* to better reflect that federal management impacts are very limited and that these stocks are not contained in the FMP. Accordingly, their status was changed from *N/A* to *undefined*, since the *N/A* applies only to stocks in the FMP.
- Sea-run cutthroat was also added to the table for *Stocks not contained in federal FMPs*. This stock is rarely caught in the Pacific Council's ocean fisheries and no direct management measures exist for it.
- White seabass, white croaker, California barracuda, and giant squid were removed from the report because it was determined that a substantial portion of these stocks do not occur in the EEZ.
- Two additional species of slipper lobster were added to the *Western Pacific Crustacean FMP*. These species, contained in the FMP, were inadvertently omitted from earlier reports.
- Escolar was deleted from the tables, as the species is actually in the oilfish family and oilfish is already included.
- The *Western Pacific Corals FMP*, as termed in earlier reports, is now referred to by its full name, the *Western Pacific Precious Corals FMP*, to distinguish it from the recently approved *Western Pacific Coral Reef Ecosystems FMP*.
- Local names more familiar to the Pacific Island constituents were added to the common names for the *Bottomfish and Seamount Groundfish of the Western Pacific FMP*.

- Seabass (hapuu'upu) contained in the *Bottomfish and Seamount Groundfish of the Western Pacific FMP* is now assessed as a single stock, instead of two.
- Opah was changed to moonfish to reflect the name used in the *Western Pacific Pelagics FMP*.
- In the *Bering Sea/Aleutian Islands Groundfish FMP*, Pacific ocean perch–previously listed in the report as two stocks–is now assessed as a single stock.
- Twenty-one rockfish stocks[3] were removed from *Bering Sea/Aleutian Islands Groundfish FMP* because those species are generally found only incidentally in the management area. The list of species included in the "other rockfish" complex last year was compiled from survey and observer databases. However, these apparent sightings took place well outside the common range of the species and were probably misidentifications or stragglers not indicative of a local population. Thus, those stocks are removed from the list this year.
- Black rockfish and blue rockfish were removed from the *Gulf of Alaska Groundfish FMP* listing, since they are no longer in the management unit.

Changes from Last Year

This year's report is based on assessment results that were completed as of August 1, 2002. Results from fishery stock assessments that were in progress on the cutoff date will be captured in next year's report. However, some notable rebuilding progress was discovered in 2002 after August 1; for example, North Atlantic swordfish is no longer overfished and close to being fully rebuilt. Another example is Atlantic pollock. The latest assessment for Atlantic pollock indicates that biomass in 2001 exceeds the overfished threshold specified for the stock. Since these stocks assessments were finalized after the August 1, 2002 date, their determinations will not be revised until next year's report.

Last year's report erroneously indicated that northern rockfish, sharpchin rockfish, shortraker rockfish, and rougheye rockfish, were removed from the *Bering Sea/Aleutian Islands Groundfish FMP*, when in fact, the Bering Sea and Aleutian Islands stocks were combined for each of these four species. Previous reports had listed each of these species as two separate stocks.

The term *principal*, used in previous reports to define regional fish stocks with directed fisheries, has been dropped. Fish stocks are defined as either major or minor, depending on the level of landings in 2001. In previous reports, *principal* was used together with the major/minor stock distinction, which created confusion. The distinction of

[3] Aurora rockfish, blackgill rockfish, blue rockfish, bocaccio, brown rockfish, canary rockfish, chameleon rockfish, chilipepper, copper rockfish, greenstriped rockfish, pink rose rockfish, pygmy rockfish, rosethorn rockfish, rosy rockfish, splitnose rockfish, stripetail rockfish, tiger rockfish, vermillion rockfish, widow rockfish, yellowmouth rockfish, and yellowtail rockfish.

major/minor based on landings will help better portray the progress in rebuilding and sustaining the most critical fish stocks. As a result of this major/minor distinction, all of the stocks in a FMP may not appear in a single table, since some stocks in the FMP are major and some are minor.

Major and Minor Stocks

As in previous reports, this report continues to distinguish between major and minor stocks for 2002. Landings determine the relative size of the stock and/or its value assigned by the marketplace (limited landings may indicate lack of a market for the species). Based on landings for all stocks, 200,000 pounds was chosen as a reasonable, although somewhat arbitrary, dividing line to distinguish between major and minor stocks. Since landings data have been updated for this year's report, changes in stock designations between major and minor from last year may reflect actual changes in the importance of a fishery or may reflect variations in – or corrections to – the available data.

Major/Minor Exception: West Coast Salmon

As with last year, the 200,000 pounds of landings criterion is not applied to Pacific coast salmon. The Pacific Council's *West Coast Salmon FMP* uses exploitation rates to classify those natural stock components that are subject to harvest impacts in ocean fisheries under Council jurisdiction. Major west coast salmon stocks are identified as those with a cumulative adult equivalent exploitation rate more than 5 percent in ocean fisheries under the Council's jurisdiction during base periods utilized by the fishery regulation assessment models (1979-1982 for chinook and 1979-1981 for coho). Minor stocks do not meet that classification.

Hauling a catch of salmon aboard a purse seiner in Prince William Sound, AK.

Report Arrangement and Format Changes

This report is centered on ten tables. The first two tables provide summary information, the second two tables provide the results of the interannual stock-by-stock analysis, and the last four identify the status of the stocks: major, minor, those not in federal FMPs and those in federal FMPs under development. The tables are followed by ten appendices that provide greater detail on methodology and overfishing definitions, as well as a guide to acronyms used throughout this report and in the tables. This year, the table layout has been restructured by:

- Eliminating the *principal stock* distinction.
- Listing stocks within FMPs separately, depending on whether they are major or minor.
- Eliminating the table for stocks contained in an FMP but not in the management unit.

Other Revisions and Improvements to the Report

- A determination of each stock's status was made using information as of August 1, 2002.
- Since some stocks are assessed infrequently, the year of the last assessment for the stock is provided.
- Included with the year of the last assessment is mention of the last year of data used in that assessment.
- Last year's 1999 commercial and recreational landings data were updated using 2001 data to determine major and minor stocks.
- Stocks are listed separately into one of two tables, depending on whether they are major or minor stocks.

Becoming Acquainted with the Tables

- As with previous years, 200,000 pounds of landings was used to distinguish between major and minor stocks to provide an adequate representation of species critical to each region.
- The report divides the overfishing and overfished columns into pre- and post-SFA overfishing definitions to make the basis for the determinations as clear as possible.
- For either *overfishing* or *overfished*, a listing of *yes* means that the most recent assessment has determined that the stock exceeds the fishing mortality threshold for overfishing or is below the biomass threshold for overfished, or that no assessment has been completed in the past year to change the *yes* determination from last year's report.
- For either *overfishing* or *overfished*, a listing of *no* means that the most recent assessment has determined that the stock does not exceed the fishing mortality threshold for overfishing or is above the biomass threshold for overfished, or that no assessment has been completed in the past year to change the *no* determination from last year's report.
- For either *overfishing* or *overfished*, a listing of *unknown* means that a recent assessment has not been completed or that insufficient information was available to make a determination about the status of the stock.
- For either *overfishing* or *overfished*, a listing of *undefined* means that no status determination criteria are specified in the FMP with which to make a determination.
- For either *overfishing* or *overfished*, a listing of *N/A* means that the determination is not applicable, usually because the stock is exempt from requiring a definition of overfishing or overfished. This designation applies only to Pacific salmon stocks for the exemption reasons noted in the tables.
- For *overfished*, stocks that are listed as *no-rebuilding* were previously below the minimum stock size threshold (overfished) and are now above that level (not overfished), yet have not been rebuilt to the target levels specified in their rebuilding plans.

- For the *approaching overfished condition*, a listing of *yes* means that (1) trends in fishing effort, fishery resource size, and other appropriate factors, indicate that the fishery will become overfished within two years, and (2) a level of analysis sufficient to determine such a listing was conducted during a recent assessment.
- For the *approaching overfished condition*, a listing of *unknown* means that an analysis sufficient to determine if the fishery will become overfished within two years was not conducted or such a determination could not be made.
- For the *approaching overfished condition*, a listing of *N/A* means that the determination is not applicable, generally because the stock is already overfished.
- The *management action required* for *overfished* stocks that do not have a rebuilding program is identified as needing a *rebuilding program*..
- The *management action required* for *overfished* stocks that are currently rebuilding under an approved rebuilding program[4] is identified in the table as *continue rebuilding*.

Assessment Lags and Carry-Over Determinations

In previous reports, a stock may have been listed as subject to overfishing, but specific management action may have since been taken by NOAA Fisheries and the respective Council to stop overfishing for that species. However, a new assessment may not have occurred to verify the success of the management action or to support a change in the status. This report continues to list such stocks as having overfishing occurring, rather than being *unknown*, until an assessment confirms that the efforts of NOAA Fisheries and the Councils have been successful in stopping overfishing. This same approach pertains to reporting on the management action required based on the stock's status. While action may have been taken to reduce fishing mortality rates, without an assessment NOAA Fisheries cannot presume that the action was successful, and so the required action of *reduce mortality* remains. However, this is not intended to pre-judge the action as unsuccessful or to imply that additional measures are needed.

NOAA Research Vessel, Albatross IV, based out of Woods Hole, MA, conducts resource surveys from ME to NC.

Pre-SFA/Post-SFA Definitions for Overfishing and Overfished

NOAA Fisheries determines the status of fish stocks based on definitions of overfishing and overfished approved under the SFA, when appropriate. These determinations are called "post-SFA" determinations. However, for a

[4] The Mid-Atlantic Council's scup stock is currently rebuilding under management measures despite having its formal rebuilding plan disapproved.

number of reasons, some FMPs have not yet been amended to conform to the SFA definitions and still use the older definitions of overfishing and overfished. Status determinations for stocks in these FMPs are called "pre-SFA" determinations. A status determination is based on one measure only – either pre- or post-SFA – not both. Until all FMPs use definitions that are in compliance with the SFA, NOAA Fisheries will continue to make the distinction between pre- and post-SFA. Not distinction between pre- and post-SFA is made for approaching an overfished condition. Since a stock is considered to be approaching an overfished condition if it is likely to become overfished in two years, it is generally based on stock level indicators and trends in fishing effort. The definition (either pre- or post-SFA) used to determine if a stock is approaching an overfished condition is based on the criteria associated with the biomass (overfished) component of the definition and trends in fishing effort.

Determining Improvements in Stock Status from Year to Year

It is difficult to gauge improvements in the status of stocks based on year to year comparisons. As stocks are added or deleted from the report and inaccuracies are corrected, the numbers of overfished stocks and those subject to overfishing will shift, though this is not an accurate indicator of how fisheries management is working to comply with the SFA and rebuild stocks. Further, as stock assessments report new or additional information, determinations may change, based more on a change in the amount and quality of data than on a change in the actual status. In addition, changes in definitions or interpretations of overfishing and overfished may result in status changes that mask actual fishing mortality and biomass trends. Thus, to better assess the changes and the reasons for the changes, a complete retrospective analysis of stock-by-stock changes in status from 1997 to the present can be found beginning on page 21.

Overview of Overfishing in 2002

- The number of stocks for which harvest rates exceeds the overfishing threshold increased from 65 in 2001 to 66 in 2002.
- The number of stocks found to have no overfishing decreased from 230 in 2001 to 208 in 2002.
- The number of stocks for which harvest rates are *unknown* or for which overfishing thresholds are not defined declined from 664 in 2001 to 658 in 2002.

Changes in Overfishing Status in 2002

- In the Northeast region, two stocks (Gulf of Maine haddock and thorny skate) were removed from the list of stocks subject to *overfishing*. Haddock is not subject to *overfishing*, whereas the status of skate is *unknown*.
- Three stocks (Georges Bank cod, witch flounder, and Cape Cod yellowtail flounder) were added as *overfishing* in 2002.

- The overfishing status determination criteria for nine species (offshore hake, Gulf of Maine/northern Georges Bank red hake, southern Georges Bank/mid-Atlantic red hake, and the winter, barndoor, smooth, little, clearnose and rosette skates) were listed as *undefined*. All except offshore hake were listed previously as *no*. Offshore hake had previously been listed as *unknown*.
- In the Southeast region, two species (south Atlantic red porgy and Gulf of Mexico gag) are no longer subject to *overfishing* as fishing mortality was reduced below thresholds.
- One species, little tunny, was listed as not subject to *overfishing* as a result of a recent assessment. This stock had previously been listed as *unknown*.
- Two species (south Atlantic golden crab and dolphin) were listed as *unknown*, having been previously listed as not subject to *overfishing*.
- In the Northwest region, Pacific whiting was added to the list of those subject to *overfishing*.
- Oregon coastal natural stock of coho salmon was revised from not subject to *overfishing* to *N/A*, to reflect the exemption specified in the FMP.
- Columbia River natural coho salmon was revised from *N/A* to *unknown*.
- In the western Pacific region, pink corals (three species), gold corals (four species), bamboo corals (two species), and black corals (three species), were changed from *no* to *unknown*.
- In the Alaska region, eastern Aleutian Islands tanner crab was previously listed as *unknown* under *overfishing*, but is now listed as *no* because fishing in the EEZ for this crab species is prohibited.
- Bering Sea Triangle tanner crab was changed from *no*, with footnote that there is no fishery in the EEZ, to *unknown* under overfishing because these crabs can be taken in conjunction with the Bering Sea grooved tanner crab fishery.
- For the Highly Migratory Species group, finetooth shark was added to the list of stocks subject to *overfishing*.

Overview of Overfished Stocks in 2002

- The number of stocks determined to be overfished increased from 81 in 2001 to 86 in 2002.
- Stocks found to be not overfished decreased from 163 in 2001 to 150 in 2002.
- The number of stocks for which the overfished status is *unknown* or for which fishing mortality thresholds are not defined declined from 722 in 2001 to 695 in 2002.

Several stocks are in the process of rebuilding, absent a formal rebuilding plan. For example, the scup stock continues to improve under management and favorable recruitment although its rebuilding plan was disapproved. The northern stock of red hake, although never formally listed as overfished and therefore not subject to a rebuilding plan under the SFA, has rebuilt from levels just over its threshold to 165 percent of its proxy biomass target.

Changes in Overfished Status in 2002

- As a result of a recent federal court order, NOAA Fisheries was required to develop and publicize the most current and reliable scientific information available for managing stocks in the *Northeast Multispecies FMP*. NOAA Fisheries determined, base on this new information[5], that more conservative criteria than that set forth in Amendment 9 to the FMP were appropriate for assessing the status of several stocks. Since the criteria in Amendment 9 were determined to be no longer valid for these stocks, NOAA Fisheries applied the new criteria, which resulted in seven stocks in the Northeast (Gulf of Maine cod, Georges Bank cod, Gulf of Maine haddock, Georges Bank haddock, Cape Cod yellowtail flounder, Atlantic pollock, southern New England/mid-Atlantic windowpane flounder) being added to the list of *overfished* stocks this year.
- Of those above stocks, only Atlantic pollock and southern New England/mid-Atlantic windowpane flounder were not previously listed as *rebuilding*.
- Summer flounder, also listed previously as *rebuilding*, was returned to the list of overfished species.
- Spiny dogfish in the Northeast region was corrected to reflect an inaccurate listing of *overfished* in 2001. This stock is now listed as *undefined* because there is no overfished definition to make a biomass/stock level determination[6].
- Three Northeast stocks are no longer listed as *overfished* (redfish, southern Georges Bank/mid-Atlantic silver hake and scup). These stocks have made strides in rebuilding and now exceed their overfished thresholds.
- The Gulf of Maine/northern Georges Bank stock of silver hake has been rebuilt under the FMP.
- One Southeast region species (south Atlantic gag) is no longer listed as *overfished*. This stock is now *rebuilding*.
- Ten species in the Southeast region (South Atlantic white shrimp, rock shrimp, brown shrimp, pink shrimp, white grunt, scamp, gray (mangrove) snapper, lane snapper, and gray triggerfish, and little tunny) are now listed as *not overfished*, having been previously listed as *unknown*.
- South Atlantic golden crab and dolphin were listed as *unknown* since no assessments were conducted on these stocks to justify the listing of *not overfished*.

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[5] The biomass and fishing mortality thresholds utilized for determinations in this report for these stocks were those criteria contained in the document "*Final Report of the Working Group on Re-Evaluation of Biological Reference Points for New England Groundfish*," Northeast Fisheries Science Center Reference Document 02-04 (March 2002), and not those approved in Amendment 9 to the FMP, many of which were 25 percent B_{MSY}. Thus, except where stated otherwise, biomass thresholds were 50 percent B_{MSY} (or proxy).

[6] Spiny dogfish deserves special note, as its situation is somewhat unusual. NOAA Fisheries disapproved the rebuilding target proposed in the *Spiny Dogfish FMP* because the biomass target proposed by the Mid-Atlantic and New England Councils was inconsistent with the estimate of SSB_{MAX} (200,000 mt) that was recommended by the Spiny Dogfish Technical Committee, Overfishing Definition Review Panel and Councils' SSC. Last year, this stock was listed as overfished because, although the Councils did not adopt it, that specific estimate does exist. The FMP that contained the flawed biomass target also specified a rebuilding program to achieve that target in 5 years. NOAA Fisheries disapproved only the biomass target, and noted specifically in the letter to both Councils the partial approval of the FMP that, "the proposed target fishing mortality rate, fishing mortality threshold and biomass threshold are consistent with SFA provisions." Consequently, the target fishing mortality rates constitute a rebuilding program, despite the fact that there is no specific biomass target.

- In the Southwest region, two species of spiny lobster, three species of slipper lobster, several tuna relatives, three species of pink corals, four of gold, three of black and two bamboo corals, and black marlin were listed as *unknown*, having been previously listed as *not overfished*.
- In the Northwest region, two species are newly listed as overfished (yelloweye rockfish and Pacific whiting).
- In the Alaska region, Pribilof Island blue king crab is listed as *approaching an overfished* condition.
- For stocks in both the *Bering Sea/Aleutian Islands Groundfish FMP* and *Gulf of Alaska Groundfish FMP*, the overfishing/overfished definitions were revised to indicate that all stocks are covered, either directly or indirectly, by a definition containing a fishing mortality rate component; and for some stocks, the overfished definitions are contained in the SAFE Report, not their respective FMP.

Approaching an Overfished Condition

The basis for determining if a stock is approaching an overfished condition is an examination of the current stock biomass and trends in fishing effort. Unless the status of the stock is known, a determination about whether the stock will become overfished within two years cannot be made with any certainty. Therefore, the definition for the biomass threshold in the FMP, along with trends in fishing effort, should be the determining criterion in evaluating whether a stock is approaching an overfished condition. In some cases, the pre-SFA definition has remained in the FMP and was used as the basis for the determinations. Also, for Pacific salmon stocks, the determining criteria is based on maximum sustainable yield/maximum spawner potential objectives for natural stocks or stock complexes. More information regarding determinations for Pacific salmon can be found in **Appendix 1**. In this report, the number of stocks in the *approaching overfished condition* column should be added to the *not overfished* totals to arrive at a final count, because all determinations are based on the stock size or equivalent. Pribilof Island blue king crab is the only species *approaching an overfished condition* in 2002.

Major and Minor Stock Results

Except for Pacific salmon, a fish stock is classified as either major or minor based on its landings in 2001. The major stocks are more frequently targeted in fisheries and may be more susceptible to overfishing than minor stocks. As a result, major stocks are given priority for stock assessments, leaving the status of many of the minor stocks *unknown*. In 2002, 259 stocks are classified as major, accounting for 27.8 percent of the total of 932 stocks. Nearly 9 billion pounds of landings are attributed to those major stocks, accounting for 99.9 percent of the nation's total landings. Of the 932 stocks in the report,

The 259 Major Fish Stocks in the U.S. Account for 99.9 Percent of Total Landings, Totaling 9 Billion Pounds in 2001

the status of 695 are either *unknown*, *undefined*, or *N/A* (a determination is not applicable). Of these, 86 percent are categorized as minor.

259 Major Stocks

- 41 are subject to overfishing
- 129 are not subject to overfishing
- 43 are overfished
- 117 are not overfished

673 Minor Stocks

- 25 are subject to overfishing
- 79 are not subject to overfishing
- 43 are overfished
- 33 are not overfished
- 1 is approaching an overfished condition

Rebuilding Programs

The SFA required NOAA Fisheries and the Councils to develop rebuilding programs for each overfished stock. By August 1, 2002, this mandate had been accomplished for all stocks with a few exceptions. Removing a stock from the list of overfished species is always an important milestone, one that demonstrates fishery management regimes have been successful in reversing downward trends of fish populations. However, removing a stock from the list is only part of the effort, as NOAA Fisheries must work with the Councils to continue to rebuild these stocks to the B_{MSY} level. A stock is required to have a rebuilding program until that stock has been rebuilt to B_{MSY} – only then can the stock be considered fully rebuilt and healthy. Therefore, there are many species that are no longer overfished, yet are still managed under rebuilding programs as they continue to rebuild completely.

A marlin on the swim platform of a charter vessel.

This report identifies 86 overfished stocks, 70 of which are managed under approved rebuilding plans. The remaining 16 stocks fall under several different scenarios. They may be managed by other federally actions that do not require rebuilding programs; they may have programs in various stages of development; or the stock has been newly declared overfished.

- Atlantic salmon is not managed under the MSA because it is listed under the Endangered Species Act (ESA).
- Atlantic sturgeon is managed by the ASMFC.
- Rebuilding programs for barndoor and thorny skates are under development.

- Eight overfished stocks are in need of rebuilding plans, including ocean pout, Gulf of Maine haddock, Cape Cod yellowtail flounder, mid-Atlantic yellowtail flounder, white hake, Gulf of Mexico red grouper, Gulf of Mexico greater amberjack, and North Atlantic albacore.
- An additional four stocks have been newly declared overfished this year and will require rebuilding plans, including southern New England windowpane flounder, Atlantic pollock, Pacific whiting and yelloweye rockfish. The respective Councils have one year from the date they were declared *overfished*, to submit a plan. However, Atlantic pollock was found to be *not overfished* after the August 1, 2002, cutoff date for this report.

In addition,

- Interim rebuilding plans are in place for lingcod, darkblotched rockfish, Pacific ocean perch, bocaccio, canary rockfish, cowcod, and widow rockfish.
- Rebuilding programs for Gulf of Maine cod, Georges Bank cod, Georges Bank haddock, southern New England yellowtail flounder, and Atlantic halibut are being reconsidered due to new rebuilding criteria required by a recent court ruling.
- Three rebuilding plans are no longer required because rebuilding has been achieved under the plan (Georges Bank Atlantic sea scallop (rebuilt in 2000), mid-Atlantic sea scallop (2001), and Gulf of Maine/northern Georges Bank silver hake (2002)). However, rebuilding management measures for these stocks are still in effect until changed by regulatory action.

Tracking Progress

In addition to the progress overall regarding overfished stocks, there have been notable gains in the stock size for specific stocks or stock complexes, including those that remain overfished or where overfishing is occurring. For example, the overall stock size for **New England groundfish** has steadily increased from about 170,000 metric tons in 1994 to over 450,000 metric tons in 2001 (**See Figure 4 in Executive Summary**). Similar gains have been seen in the Georges Bank and **mid-Atlantic sea scallop** stocks (**Figure 8**). Sea scallops, managed in the Northeast region under the *Sea Scallop FMP*, support an important, high value fishery off the New England and mid-Atlantic coasts. The FMP was implemented in 1982 and currently controls fishing effort through limited entry, restrictions on days vessels

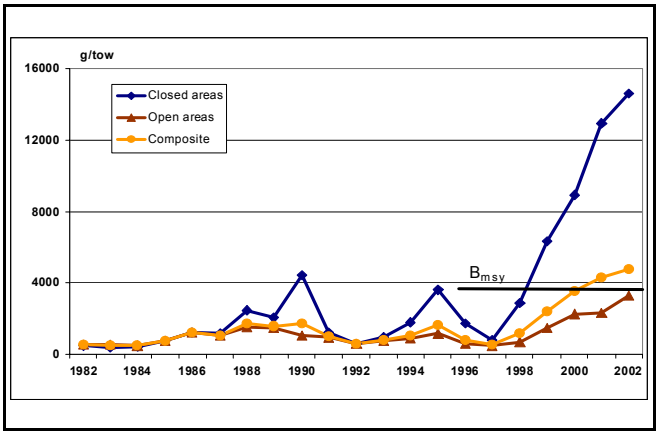

Figure 8. Changes in abundance for the mid-Atlantic sea scallop stock (courtesy of NEFMC).

can fish at sea, gear measures, crew limits, and closed areas implemented under the *Northeast Multispecies FMP*. These measures have played a key role in protecting sea scallop spawning stocks and reducing fishing mortality. The 2001 scallop survey indicated that the stratified mean scallop catch per tow was 4.3 kg of cleaned meat weight (meats) for the mid-Atlantic stock. This level is above the B_{MAX} threshold of 3.9 kg/tow (meats) and indicates that the stock is fully rebuilt. Results in 2002 were even higher.

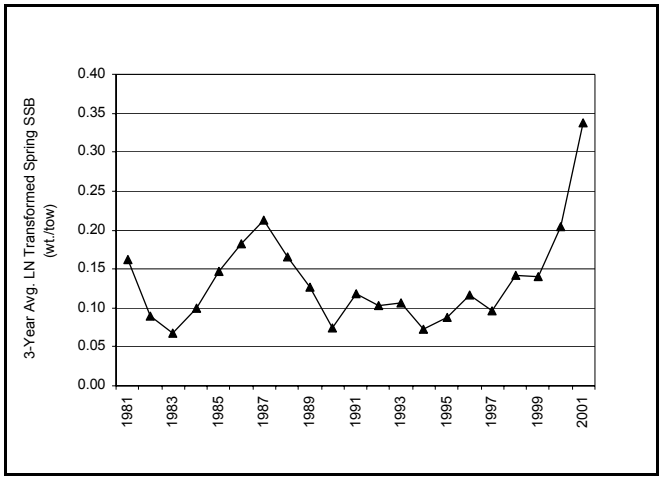

Figure 9. Changes in Spawning Stock Biomass (SSB) estimates for black sea bass (courtesy of MAFMC).

A **Black Sea Bass** FMP was first considered for development in 1990. By 1996, management measures were developed and incorporated into Amendment 9 of the *Summer Flounder, Scup and Black Sea Bass FMP*. These management measures included commercial quotas, gear requirements, minimum size limits, recreational harvest limits, and permit and reporting requirements.

Since the implementation of management measures for this fishery, stock size has increased to a record high level. Although the stock is rebuilding and fishing mortality rates have declined, the stock is still considered overfished and overfishing is still occurring. However, survey information indicates that the exploitable biomass in 2001 was the highest it has been since 1976; the three-year average biomass increased by 65 percent from 2000 to 2001 (**Figure 9**). In addition, relative exploitation rates have also dropped significantly indicating a reduction in fishing mortality. Similar improvements in stock status can be seen in the summer flounder and scup stocks.

The **Gulf of Mexico group king mackerel** fishery is an example of a fishery that primarily occurs in the EEZ and at the inception of the SFA was not formally managed in federal waters. Upon development of the *Coastal Migratory Pelagics FMP*, Gulf group king mackerel were considered to be in a somewhat severe state of being overfished and undergoing overfishing. Since development of the original FMP, additional management measures have been adopted

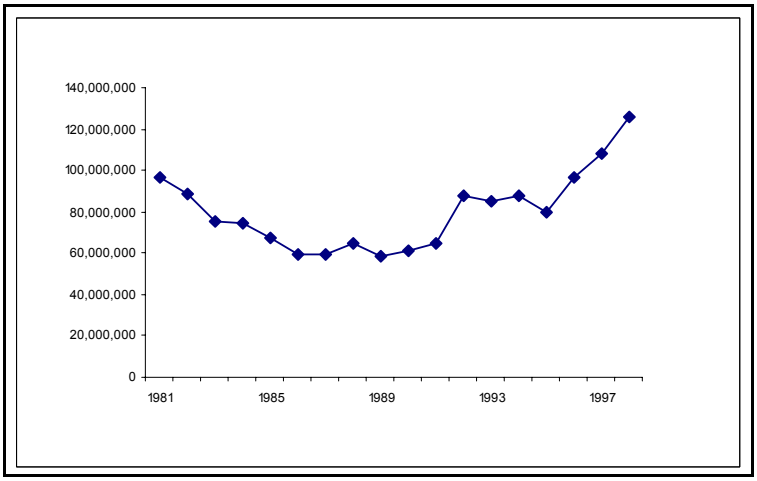

Figure 10. Gulf king mackerel SSB estimates, in millions of pounds (courtesy of GMFMC).

through amendments and regulatory actions that over the years have allowed this stock to improve, although it still remains overfished (**Figure 10**).

The Councils this year have responded to some daunting challenges. In May 2002, the **PFMC** learned that three overfished stocks, **bocaccio, yelloweye and canary rockfish**, were rebuilding more slowly than expected. Over the course of the year, the Council developed, and NOAA Fisheries implemented, a series of new measures for both 2002 and 2003 fisheries. The three affected stocks are caught in many commercial and recreational fisheries. All are large, long-lived, late maturing, and slow-growing species, making them particularly vulnerable to overfishing. Historically, these three species were taken by trawl, line and sport gear. Trawl catches of rockfish have been reduced by footrope restrictions put in place on the shelf since 2000, which keep trawlers out of most rockfish habitat.

Formal rebuilding plans for bocaccio, canary rockfish, and yelloweye rockfish will be developed in 2003. Even under zero fishing pressure, the predicted time required to rebuild these species is estimated to be more than 50 years. Starting in 2003, conservative area and season restrictions will be implemented to begin to rebuild these stocks and the six other groundfish stocks designated as overfished. Fisheries that have a significant bycatch of these species will be dramatically restructured. These actions will affect not only the many different groundfish fisheries, but also fisheries targeting non-groundfish species. The effects will span commercial, recreational, tribal, and even research fisheries. However, fisheries with very low incidental bycatch of these three species will be minimally affected by these actions.

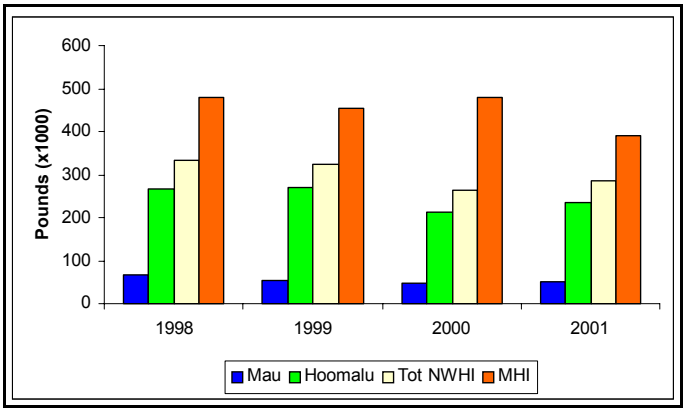

Figure 11. Annual landings of bottomfish stocks in 4 western Pacific regions (courtesy of WPFMC).

In the **Western Pacific Region**, the **bottomfish stocks** as a whole are healthy. The Northwestern Hawaiian Islands (NWHI) bottomfish fishery is small, highly productive, and well managed. The fishery balances the fishery in the Main Hawaiian Islands (MHI), where localized depletion is known to occur. The focus in the Western Pacific region is now on recovering bottomfish stocks in the MHI where landings have declined between 2000 and 2001 (**Figure 11**).

Management efforts have made the **Bering Sea pollock** fishery the largest single-species fishery in the United States. In 1998, Congress passed the American Fisheries Act, which allowed fishermen and processors to form fishery cooperatives that now manage much of the day-to-day operations of the Bering Sea pollock fishery. NOAA Fisheries monitors the health of the stock and the overall harvests by the cooperatives. Since 1998, product utilization rates for Bering Sea pollock have increased 24 percent. At the same time, salmon bycatch has dropped 50 percent in what was already one of the world's cleanest fisheries. The discard rate for pollock has decreased from 11 percent in 1990 to 1.3 percent in 2001. Management of this fishery, including the establishment of the cooperatives, eliminated the race for fish, and allows pollock fishing to be dispersed over time and area, reducing potential impacts on endangered Steller sea lions. The resultant ability to have a constant level of fishing for the past 10 years has provided stability to the fishing industry and maintained high biomass levels (**Figure 12**).

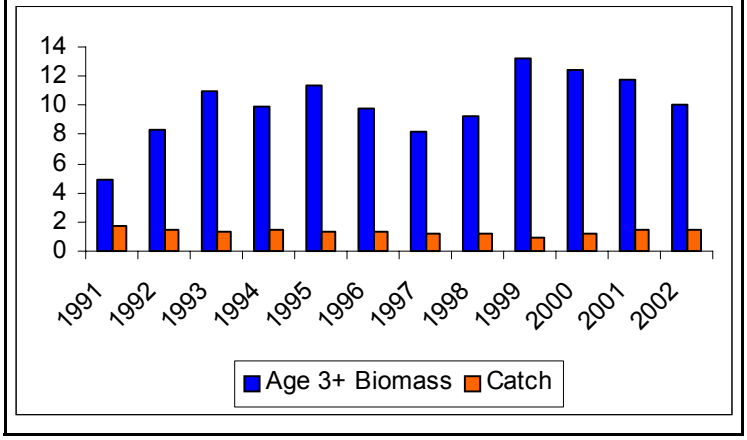

Figure 12. Eastern Bering Sea pollock, biomass vs. catch, in million metric tons (courtesy of FAKR).

Table 1. Summary of Stock Status by Council Area, 2001 and 2002.

Jurisdiction	Year	Number of Stocks	Overfishing?*					Overfished?**					Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	N/A#	Yes	No	Not Known	Not Defined	N/A#	
NEFMC	2001	37	7	23	7	0	0	10	21	3	2	0	1
	2002	38	8	14	14	2	0	15	20	2	1	0	0
MAFMC	2001	11	4	7	0	0	0	4	5	1	1	0	0
	2002	11	4	7	0	0	0	4	5	1	1	0	0
NEFMC/ MAFMC	2001	3	3	0	0	0	0	2	1	0	0	0	0
	2002	3	3	0	0	0	0	1	1	0	1	0	0
SAFMC	2001	88	13	21	52	2	0	15	4	61	8	0	0
	2002	88	12	21	53	2	0	14	14	53	8	0	0
GMFMC	2001	57	5	13	37	2	0	6	4	38	8	0	1
	2002	57	4	14	37	2	0	6	5	38	8	0	0
SAFMC/ GMFMC	2001	10	0	6	3	1	0	1	5	3	1	0	0
	2002	10	0	6	3	1	0	1	5	3	1	0	0
CFMC	2001	179	1	9	154	15	0	3	1	138	37	0	0
	2002	179	1	9	154	15	0	3	1	138	37	0	0
NE, MA, and SAFMC	2001	1	0	0	1	0	0	0	0	1	0	0	0
	2002	1	0	0	1	0	0	0	0	1	0	0	0
PFMC	2001	168	0	41	68	2	57	7	30	69	4	57	1
	2002	165	1	39	65	7	53	9	28	66	9	53	0
WPFMC	2001	64	0	15	2	47	0	1	48	14	1	0	0
	2002	63	0	5	13	45	0	1	29	32	1	0	0
NPFMC	2001	243	0	82	161	0	0	2	32	209	0	0	0
	2002	219	0	81	138	0	0	2	30	186	0	0	1
PFMC/ NPFMC	2001	1	0	1	0	0	0	0	0	0	1	0	0
	2002	1	0	1	0	0	0	0	0	0	1	0	0

Table 1. Summary of Stock Status by Council Area, 2001 and 2002, *Cont.*

Jurisdiction	Year	Number of Stocks	Overfishing?*					Overfished?**					Approaching Overfished Condition
			Yes	No	Not Known	Not Defined	N/A#	Yes	No	Not Known	Not Defined	N/A#	
HMS	2001	83	29	8	46	0	0	29	8	46	0	0	0
	2002	83	30	7	46	0	0	29	8	46	0	0	0
ASMFC	2001	12	3	3	5	1	0	1	3	5	3	0	0
	2002	12	3	3	5	1	0	1	3	5	3	0	0
GSMFC	2001	2	0	1	1	0	0	0	1	1	0	0	0
	2002	2	0	1	1	0	0	0	1	1	0	0	0
Total	2001	959	65	230	537	70	57	81	163	589	66	57	3
	2002	932	66	208	530	75	53	86	150	572	70	53	1

* Determination based on fishing mortality rate.

** Determination based on stock level.

Not applicable, generally due to exemption in FMP, as specified in Appendix 1.

Table 2. Description of Major and Minor Stocks by Council, 2002.

Jurisdiction	Stock Group	# of Stocks	2001 Landings (1,000 Pounds)@	Overfishing?*					Overfished?**					Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	N/A#	Yes	No	Not Known	Not Defined	N/A#	
NEFMC	Major	29	444,485	8	12	8	1	0	10	16	2	1	0	0
	Minor	9	67	0	2	6	1	0	5	4	0	0	0	0
	Total	38	444,552	8	14	14	2	0	15	20	2	1	0	0
MAFMC	Major	11	251,667	4	7	0	0	0	4	5	1	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	11	251,667	4	7	0	0	0	4	5	1	1	0	0
NEFMC / MAFMC	Major	3	56,419	3	0	0	0	0	1	1	0	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	56,419	3	0	0	0	0	1	1	0	1	0	0
SAFMC	Major	24	38,040	9	9	6	0	0	8	10	6	0	0	0
	Minor	64	1,770	3	12	47	2	0	6	4	47	7	0	0
	Total	88	39,810	12	21	53	2	0	14	14	53	7	0	0
GMFMC	Major	23	307,511	4	7	10	2	0	4	5	11	3	0	0
	Minor	34	1,235	0	7	27	0	0	2	0	27	5	0	0
	Total	57	308,746	4	14	37	2	0	6	5	38	8	0	0
SAFMC / GMFMC	Major	8	47,432	0	6	2	0	0	1	5	2	0	0	0
	Minor	2	110	0	0	1	1	0	0	0	1	1	0	0
	Total	10	47,542	0	6	3	1	0	1	5	3	1	0	0
CFMC	Major	4	12,490	1	1	2	0	0	1	1	2	0	0	0
	Minor	175	0	0	8	152	15	0	2	0	136	37	0	0
	Total	179	12,490	1	9	154	15	0	3	1	138	37	0	0
NE, MA, and SAFMC	Major	1	1,348	0	0	1	0	0	0	0	1	0	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	1,348	0	0	1	0	0	0	0	1	0	0	0

Table 2. Description of Major and Minor Stocks by Council, 2002, *Cont.*

Jurisdiction	Stock Group	# of Stocks	2001 Landings (1,000 Pounds)@	Overfishing?*					Overfished?**					Approaching Overfished Condition
				Yes	No	Not Known	Not Defined	N/A#	Yes	No	Not Known	Not Defined	N/A#	
PFMC	Major	64	913,632	1	35	15	2	11	7	27	15	4	11	0
	Minor	101	1,867	0	4	50	5	42	2	1	51	5	42	0
	Total	165	915,499	1	39	65	7	53	9	28	66	9	53	0
WPFMC	Major	13	39,824	0	0	0	13	0	0	9	4	0	0	0
	Minor	50	17,911	0	5	13	32	0	1	20	28	1	0	0
	Total	63	57,735	0	5	13	45	0	1	29	32-	1	0	0
NPFMC	Major	50	4,849,592	0	44	6	0	0	0	29	21	0	0	0
	Minor	169	2,019	0	37	13.2	0	0	2	1	165	0	0	1
	Total	219	4,851,611	0	81	138	0	0	2	30	186	0	0	1
PFMC / NPFMC	Major	1	77,457	0	1	0	0	0	0	0	0	1	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	77,457	0	1	0	0	0	0	0	0	1	0	0
HMS	Major	15	50,872	8	4	3	0	0	7	5	3	0	0	0
	Minor	68	557	22	3	43	0	0	22	3	43	0	0	0
	Total	83	51,429	30	7	46	0	0	29	8	46	0	0	0
ASMFC	Major	11	728,306	3	2	5	1	0	0	3	5	3	0	0
	Minor	1	0	0	1	0	0	0	1	0	0	0	0	0
	Total	12	728,306	3	3	5	1	0	1	3	5	3	0	0
GSMFC	Major	2	1,173,546	0	1	1	0	0	0	1	1	0	0	0
	Minor	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2	1,173,546	0	1	1	0	0	0	1	1	0	0	0
TOTAL	Major	259	8,991,481	41	129	59	19	11	43	117	74	14	11	0
	Minor	673	25,536	25	79	471	56	42	43	33	498	56	42	1
	Total	932	9,017,017	66	208	530	75	53	86	150	572	70	53	1

@ Landings are provided as an illustration only and reflect all landings attributed to a species--that is, landings seaward of the area of jurisdiction for each managing body, and may thus not be reflective of those landings used for management purposes, where the management unit is only a portion of that range.

* Determination based on fishing mortality rate.

** Determination based on stock level.

Not applicable, generally due to exemption in FMP, as specified in Appendix 1.

INTER-ANNUAL STOCK-BY-STOCK COMPARISONS OF STOCK STATUS

Inter-annual comparisons of aggregate statistics from this report have in the past proved problematic. Difficulties arise due to changes in the composition of stocks as well as revisions to the definitions of overfishing and overfished included in the report each year. In addition, other confounding factors make an interannual comparison of aggregate numbers problematic. Stocks may change status for any of several different reasons. Not all of these changes relate to the question, "To what extent has the status of stocks improved?"

Stocks may change status for any of several different reasons. Not all of these changes relate to the question, "To what extent has the status of stocks improved?"

Reasons for inter-annual changes may include:

(i) Each year some stocks are removed from the report, while others are added. The total number of stocks included in the reports from 1997 to 2002 has changed each year (see **Figure 1**). The mix of stocks is also somewhat different each year (e.g. between 2000 and 2001, 72 stocks were added and 18 deleted).

(ii) Some stocks still do not have fully approved status determination criteria under the SFA but do have pre-existing overfishing definitions. In 2000 and beyond, such stocks have often been evaluated using the pre-SFA definitions, whereas in 1999 and prior years, stocks without post-SFA status determination criteria were mostly categorized as *undefined*. In fact, the reason for many of the changes in status between 1999 and 2000 was that NOAA Fisheries revised its previous decision to categorize most stocks without approved post-SFA overfishing definitions as *undefined* or *unknown*, and instead began using pre-SFA definitions in such cases. This change resulted in a large number of stocks (33) changing from *unknown* or *undefined* to *not subject to overfishing*, but not necessarily because their status had improved between years. Additionally, 21 stocks changed from *unknown* or *undefined* to *overfished*, and 8 stocks changed from *unknown* or *undefined* to *not overfished*, again not necessarily because of actual changes in stock status. In 2002, a few stocks even reverted from being categorized under post-SFA definitions back to pre-SFA definitions.

(iii) In some cases, definitions of overfishing and overfished have changed between years.

(iv) In each year, there are a few incorrect categorizations.

(v) Many stocks have moved from the categories of *overfishing*, *not subject to overfishing*, *overfished*, or *not overfished* to *unknown*, *undefined*, or *N/A*, or vice versa; this distorts inter-year comparisons of aggregate numbers classified in each of the different categories.

(vi) In some cases, the actual status of a stock or stock complex has changed in terms of either crossing a fishing mortality threshold or crossing a biomass threshold.

The purpose of the current analysis was to separate out those changes due to *reason* (vi) from other, less relevant changes. This was accomplished by tracking changes in the status of each individual fish stock through all of the years it was included in the reports. Each time there was a change in status between the categories of *yes* (Y), *no* (N), *approaching* (A), or *unknown, undefined* or *N/A* (the latter 3 being grouped together as *Unk*), it was recorded. Stocks added to or deleted from the report in a given year were included in the analysis if they had a status at the time of coming in or going out (in which case, they were included in the categories of status = *Unk* becoming Y, N, or A; or Y, N, or A becoming *Unk*, respectively) but stocks that entered or left the report with a status of Unk were not included in the analysis for that particular year. This exercise was repeated separately for the overfishing and overfished classifications. By this means, the biases associated with comparisons of aggregate statistics due to *reason*s (i), (ii) and (v) were removed, and every attempt was made to correct for *reason* (iv) retrospectively. However, this simple procedure did not account for changes due solely to *reason* (iii), rather than actual changes in status.

In order to eliminate the effects of *reason* (iii), all stocks that had more than one status change between 1997 and 2002 (27 stocks for *overfishing* and 25 stocks for *overfished*) were re-evaluated by applying the 2002 status determination criteria to all previous years as well, based only on the most recent stock assessment. In some cases, this did not result in a change to any of the previous records, while in others (particularly some of the New England groundfish), it did. These will be referred to as the "corrected" numbers.

The Stocks for Which *Overfishing* Has Been Eliminated Comprise Many Commercially and Recreationally Valuable Major Species.

Table 3 summarizes the results for stock status with respect to *overfishing*. Since 1997, *overfishing* has been eliminated a total of 28 times (corrected number, 26). The (corrected) 26 cases where *overfishing* has been eliminated comprise 16 commercially or recreationally valuable *major* stocks, including one replicate (**Table 4**). *Overfishing* has also been eliminated for 10 *minor* species (**Table 4**). Of these, 6 stocks (goliath grouper and Nassau grouper from the South Atlantic, Gulf of Mexico and Caribbean areas) were declared to have improved to a status of *not subject to overfishing* in the year 2000 because these fisheries were closed to fishing in the EEZ; however, fisheries on these six stocks had actually been closed several years previously. For 3 of the major stocks (Atlantic witch flounder, Cape Cod yellowtail flounder, and Gulf of Mexico red drum), *overfishing* was eliminated once during the 1997-2002 period, but has since resumed. Gulf of Maine haddock is the only stock for which *overfishing* has been eliminated twice (with a switch back to experiencing *overfishing* in between). These switches are due to the fact that exploitation rates have fluctuated around the overfishing threshold (based on the most recent stock assessment, not previous ones). Currently, the stock is not experiencing *overfishing*.

On the minus side, *overfishing* commenced a total of 13 times (corrected number, 12) between 1997 and 2002, giving a net positive result of 15 (28 minus 13) for the raw numbers and 14 (26 minus 12) for the corrected numbers **(Tables 3 and 4**). In 3 cases (Gulf of Maine haddock, Atlantic loligo squid, and Gulf of Mexico gag grouper), the negative change in *overfishing* status occurred earlier in the 1997 - 2002 time period, and has since been rectified. In the case of Atlantic bigeye tuna (a major species experiencing *overfishing*), the status of this highly migratory species is largely not within control of NOAA Fisheries or the Councils.

Table 5 summarizes the results for stock status with respect to the *overfished* condition. Since 1997, a total of 24 (corrected number, 20) *previously-overfished* stocks have been rebuilt sufficiently in biomass for their status to have transitioned to *not overfished*. The corrected numbers comprise 17 commercially or recreationally valuable *major* species and 3 *minor* species (**Table 6**). Of these, Southern New England/mid-Atlantic windowpane flounder was recorded as having transitioned to a status of *not overfished* in 1999, but has since reverted to an *overfished* condition. Pacific sardine and Pacific (chub) mackerel were previously declared as *overfished* based on OLO, but had already rebuilt substantially at the time they were brought under federal management.

Many of the above stocks have exhibited dramatic increases in biomass over the last few years (e.g., see **Figure 4 and page 14**). In addition, there are several stocks that are now fully rebuilt but are not included in the above list because they have never been classified as *overfished*, due to the fact that at the time the biomass criterion was first applied, they were already in the process of rebuilding. Two notable examples are Georges Bank sea scallops and mid-Atlantic sea scallops, both of which would have been classified as *overfished* in 1997 if the biomass criterion had been applied then, but had crossed the biomass threshold by 1999, the first year the biomass criterion was actually used, and had fully rebuilt by 2000 on Georges Bank (although not acknowledged until the 2001 report), and by 2001 in the mid-Atlantic.

On the minus side, between 1997 and 2002, there were 15 (corrected number, 7) occurrences of stocks that had declined sufficiently in biomass to become classified as *overfished* (**Table 5**). This results in a net positive gain of 9 (24 minus 15) for the raw numbers and 13 (20 minus 7) for the corrected numbers. The (corrected) 7 stocks whose status has worsened comprise 6 major stocks and one minor stock (**Table 6**).

There has been steady, incremental improvement in the status of stocks managed under the MSA. In fact, the rate of progress in only five years has been remarkable given the constraints imposed...Such progress can be attributed to concerted efforts by NOAA Fisheries, the Councils, the states, and commercial and recreational fishing interests to end *overfishing* and rebuild depleted fish stocks.

Tables 3-6 confirm that there has been steady, incremental improvement in the status of stocks managed under the MSA. In fact, the rate of progress in only five years has been remarkable given the constraints imposed by restrictive budgets, data shortfalls, lengthy procedural requirements for developing and implementing FMPs and amendments, the need to mitigate short-term negative socio-economic impacts of restrictive management measures and, most importantly, protracted rebuilding periods due to the biology of most exploited fish and invertebrate species, along with the unpredictable vagaries of nature. Such progress can be attributed to concerted efforts by NOAA Fisheries, the Councils, the states, and commercial and recreational fishing interests to end *overfishing* and rebuild depleted fish stocks in order to enhance the long-term viability of U.S. fisheries.

Tables 3 and 5 also confirm the efforts made by NOAA Fisheries and the Councils to assess the status of previously unknown stocks. Over the period 1997 to 2002, a total of 148 (corrected number, 135) stocks have had their status change from *Unk* to either Y, N, or A in terms of *overfishing*; while a total of 111 (corrected number, 106) stocks have had their status change from *Unk* to either Y, N, or A in terms of *overfished*. While these numbers are somewhat diluted by the reverse trend where the status changed from something definite to *Unk* (63 cases for *overfishing* and 48 cases for *overfished*; corrected numbers 50 and 41, respectively), the latter situation is mainly due to splitting stock complexes (e.g., sculpins) into individual component species and stocks, a decline in the tendency to classify stocks on the basis of indicator species, or a determination that previous stock assessment results had become outdated. Thus, there has been a net gain of 85 (148 minus 63) for the raw numbers and 85 (135 minus 50) for the corrected numbers for stocks changing status from *Unk* to something definite in terms of *overfishing*; and a net gain of 63 (111 minus 48) for the raw numbers and 65 (106 minus 41) for the corrected numbers for stocks changing status from *Unk* to something definite in terms of whether or not they are *overfished*.

In summary, considerable steady, incremental progress has been made in bringing U.S. fisheries into conformance with National Standard 1. It should also be noted that this report does not capture the totality of the progress that has been made towards ending *overfishing* and rebuilding depleted fish stocks. Because the "events" recorded in the

tables are restricted to those where a fishing mortality or biomass threshold is crossed, or there is some other type of transition between categories, there is no acknowledgment of those cases where there have been substantial reductions in fishing mortality or substantial increases in biomass towards thresholds that have not yet been crossed. In addition, stocks that had already exhibited improvements in status as a result of previous rebuilding efforts may or may not be represented (see above for the Georges Bank and mid-Atlantic sea scallops examples). On the other hand, given the number of stocks currently experiencing *overfishing* (66) or currently in an *overfished* state (86), it is evident that there is still much to be accomplished.

Table 3: Interannual stock-by-stock comparisons of stock status with respect to whether or not *overfishing* was occurring.

Status change	Better or Worse	'97 → '98	'98 → '99	'99 → '00	'00 → '01	'01 → '02	Total
Y → N	Better	2	3	13 (12)	7 (6)	3	28 (26)
N → Y	Worse	1	2	2	3	5 (4)	13 (12)
Y → Unk	?		2		4 (2)	1 (0)	7 (4)
Unk → Y	?	6	13 (11)	6 (5)	1 (0)		26 (22)
N → Unk	?	21		8	2 (1)	25 (16)	56 (46)
Unk → N	?	38	17 (16)	43 (41)	18 (12)	5	121 (112)
A → Y	Worse						
Y → A	Better						
A → N	Better	1	6				7
N → A	Worse						
A → Unk	?						
Unk → A	?	1					1

Y = *Yes*; N = *No*; Unk = *Unknown* or *undefined* or *N/A*; A = Approaching a situation of *overfishing*.

* Numbers in parentheses have been "corrected" for changes in overfishing definitions between years by retrospectively applying the 2002 definitions and the most recent stock assessments to all previous years (see text).

Table 4: Cases where *overfishing* has been eliminated or initiated between 1997 and 2002.

Stocks for which *overfishing* eliminated	Stocks for which *overfishing* initiated
Major stocks	***Major stocks***
Gulf of Maine haddock (x2)	*Georges Bank cod*
Atlantic witch flounder	*Gulf of Maine haddock*
Cape Cod yellowtail flounder	*Atlantic witch flounder*
Gulf of Maine/Georges Bank windowpane flounder	*Cape Cod yellowtail flounder*
Georges Bank winter flounder	*Northern (Gulf of Maine) shrimp*
Southern New England winter flounder	*Atlantic loligo squid*
Atlantic bluefish	*Gulf of Mexico vermillion snapper*
Atlantic loligo squid	*Gulf of Mexico gag grouper*
South Atlantic scamp	*Gulf of Mexico red drum*
South Atlantic white grunt	*Pacific whiting*
Gulf of Mexico king mackerel	*Atlantic bigeye tuna*
Gulf of Mexico gag grouper	*Atlantic finetooth shark*
Gulf of Mexico red drum	
Pacific darkblotched rockfish	
Pacific bank rockfish	
Minor stocks	
South Atlantic red porgy	
South Atlantic goliath grouper	
South Atlantic Nassau grouper	
South Atlantic wreckfish	
Gulf of Mexico goliath grouper	
Gulf of Mexico Nassau grouper	
Caribbean goliath grouper	
Caribbean Nassau grouper	
Pacific yelloweye rockfish	
Pacific silvergrey rockfish	

Table 5. Interannual stock-by-stock comparisons of stock status with respect to whether or not the stock was *overfished*.

Status change	Better or Worse	'97 → '98	'98 → '99	'99 → '00	'00 → '01	'01 → '02	Total
Y → N	Better	1	6	7 (5)	6 (3)	4 (5)	24 (20)
N → Y	Worse	2 (1)	2	1	3 (2)	7 (1)	15 (7)
Y → Unk	?	1 (0)	4 (3)		11 (10)	1 (0)	17 (13)
Unk → Y	?	1	10 (13)	36 (33)	1	1	49 (49)
N → Unk	?		2	4 (3)		23 (22)	29 (27)
Unk → N	?		12 (11)	22 (20)	12	13 (11)	59 (54)
Y → A	Better			1			1
A → Y	Worse		1	1	2	2	6
N → A	Worse		1 (0)		1	1	3 (2)
A → N	Better		1	1	1	1	4
A → Unk	?			1	1 (0)		2 (1)
Unk → A	?			2	1		3

Y = *Yes*; N = *No*; Unk = *Unknown* or *undefined* or *N/A*; A = Approaching an *overfished* condition.

* Numbers in parentheses have been "corrected" for changes in definitions of overfished between years by retrospectively applying the 2002 definitions and the most recent stock assessments to all previous years (see text).

Table 6: Cases where stocks have transitioned from *overfished* to *not overfished*, and from *not overfished* to *overfished*, between 1997 and 2002.

Stocks that have transitioned from *overfished* to *not overfished*	Stocks that have transitioned from *not overfished* to *overfished*
Major stocks	***Major stocks***
Atlantic (Acadian) redfish	*Southern New England/mid-Atlantic windowpane flounder*
Gulf of Maine/Georges Bank windowpane flounder	*South Atlantic black sea bass*
Southern New England/mid-Atlantic windowpane flounder	*Gulf of Mexico greater amberjack*
Georges Bank winter flounder	*Pacific whiting*
Gulf of Maine/Northern Georges Bank silver hake (now fully rebuilt)	*Atlantic bigeye tuna*
Southern Georges Bank/mid-Atlantic silver hake	*Atlantic albacore*
Gulf of Maine/Northern Georges Bank red hake (now fully rebuilt)	***Minor stocks***
the northern stock of Atlantic monkfish	*Atlantic ocean pout*
Atlantic winter skate	
Atlantic scup	
Atlantic loligo squid	
Atlantic weakfish	
South Atlantic gag grouper	
Strait of Juan de Fuca coho salmon	
Pacific (chub) mackerel	
Pacific sardine	
Bering Sea snow crab	
Minor stocks	
Atlantic smooth skate	
Snohomish River summer/fall chinook salmon	
Pacific coast chum salmon	

Table 7. Summary of Stock Status for Major Species Contained in Federal Fishery Management Plans.

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Sea Scallop	**ATLANTIC SEA SCALLOP - GEORGES BANK**	NEFMC		No		No	No	N/A	rebuilt under plan
	ATLANTIC SEA SCALLOP - MIDDLE ATLANTIC	NEFMC		Yes		No	No	reduce mortality	rebuilt under plan
Northeast Multispecies	**COD - GULF OF MAINE*** **	NEFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	under reconsideration per court order
	COD - GEORGES BANK* **	NEFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	under reconsideration per court order
Northeast Multispecies	**HADDOCK - GULF OF MAINE*** **	NEFMC		No		Yes	N/A	rebuilding program	not submitted
	HADDOCK - GEORGES BANK* **	NEFMC		No		Yes	N/A	continue rebuilding	under reconsideration per court order
Northeast Multispecies	**AMERICAN PLAICE*** **	NEFMC		Yes		No	No	reduce mortality	N/A
Northeast Multispecies	**REDFISH*** **	NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	**WITCH FLOUNDER*** **	NEFMC		Yes		No	No	reduce mortality	N/A
Northeast Multispecies	**YELLOWTAIL FLOUNDER - GEORGES BANK*** **	NEFMC		No		No	No	N/A	N/A
	YELLOWTAIL FLOUNDER - SOUTHERN NEW ENGLAND* **	NEFMC		No		Yes	N/A	continue rebuilding	under reconsideration per court order

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	YELLOWTAIL FLOUNDER - CAPE COD* **	NEFMC		Yes		Yes	N/A	reduce mortality rebuilding program	not submitted
	YELLOWTAIL FLOUNDER - MIDDLE ATLANTIC* **	NEFMC		Yes		Yes	N/A	reduce mortality rebuilding program	not submitted

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Northeast Multispecies	**WHITE HAKE*** **	NEFMC		Yes		Yes	N/A	reduce mortality rebuilding program	not submitted
Northeast Multispecies	**POLLOCK*** **	NEFMC		No		Yes	N/A	rebuilding program	to be developed[1]
Northeast Multispecies	**WINDOWPANE FLOUNDER - GULF OF MAINE / GEORGES BANK*** **	NEFMC		No		No	No	N/A	N/A
	WINDOWPANE FLOUNDER - SOUTHERN NEW ENGLAND / MIDDLE ATLANTIC* **	NEFMC		No		Yes	N/A	rebuilding program	to be developed[1]
Northeast Multispecies	**WINTER FLOUNDER - GULF OF MAINE*** **	NEFMC	Unknown		Undefined		Unknown	N/A	N/A
	WINTER FLOUNDER - GEORGES BANK* **	NEFMC		No		No - rebuilding	No	continue rebuilding[2]	not submitted
	WINTER FLOUNDER - SOUTHERN NEW ENGLAND* **	NEFMC		No		No	No	N/A	N/A
Northeast Multispecies	**SILVER HAKE - GULF OF MAINE / NORTHERN GEORGES BANK**	NEFMC		Unknown		No	No	N/A	rebuilt under plan
	SILVER HAKE - SOUTHERN GEORGES BANK / MIDDLE ATLANTIC	NEFMC		Unknown		No - rebuilding	No	continue rebuilding[2]	3/10-year plan[3]
Northeast Multispecies	**RED HAKE - GULF OF MAINE / NORTHERN GEORGES BANK**	NEFMC		Unknown		No	No	N/A	N/A
	RED HAKE - SOUTHERN GEORGES BANK / MIDDLE ATLANTIC	NEFMC		Undefined[4]		No	Unknown[5]	N/A	N/A
Atlantic Herring	**ATLANTIC HERRING**	NEFMC		No		No	No	N/A	N/A
Red Crab	**DEEPSEA RED CRAB**	NEFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Monkfish	**MONKFISH - NORTH**	NEFMC / MAFMC		Yes[6]		No - rebuilding	No	reduce mortality continue rebuilding[2]	4/10-year plan
	MONKFISH - SOUTH	NEFMC / MAFMC		Yes[6]		Yes	N/A	reduce mortality continue rebuilding	4/10-year plan
Spiny Dogfish	**SPINY DOGFISH**	NEFMC / MAFMC		Yes		Undefined[7]	N/A	reduce mortality continue rebuilding	4/5-year plan[8]
Summer Flounder, Scup, and Black Sea Bass	**SUMMER FLOUNDER**	MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	8/10-year plan
Summer Flounder, Scup, and Black Sea Bass	**SCUP**	MAFMC		Yes[9]		No - rebuilding	No	reduce mortality continue rebuilding[2]	disapproved
Summer Flounder, Scup, and Black Sea Bass	**BLACK SEA BASS**	MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	7/10-year plan
Atlantic Bluefish	**BLUEFISH (EXCEPT GULF OF MEXICO)**	MAFMC		No		Yes	N/A	continue rebuilding	4/9-year plan
Atlantic Surfclam and Ocean Quahog	**SURFCLAM**	MAFMC	No		Undefined		Unknown	N/A	N/A
Atlantic Surfclam and Ocean Quahog	**OCEAN QUOHOG**	MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	**SQUID - *ILLEX***	MAFMC		No		Unknown	Unknown	N/A	N/A
	SQUID - *LOLIGO*	MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	**ATLANTIC MACKEREL**	MAFMC		No		No	No	N/A	N/A
Atlantic Mackerel, Squid, and Butterfish	**BUTTERFISH (ATLANTIC)**	MAFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Tilefish	**GOLDEN TILEFISH**	MAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	2/10-year plan

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Golden Crab	**GOLDEN CRAB**	SAFMC		Unknown[10]		Unknown[10]	Unknown	N/A	N/A
South Atlantic Shrimp	**WHITE SHRIMP**	SAFMC	No		No		No	N/A	N/A
South Atlantic Shrimp	**ROCK SHRIMP**	SAFMC	No		No		No	N/A	N/A
South Atlantic Shrimp	**BROWN SHRIMP**	SAFMC	No		No		No	N/A	N/A
South Atlantic Shrimp	**PINK SHRIMP**	SAFMC	No		No		No	N/A	N/A
South Atlantic Snapper-Grouper	**VERMILION SNAPPER**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	4/10-year plan**
South Atlantic Snapper-Grouper	**RED SNAPPER**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	**SNOWY GROUPER**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	**GOLDEN TILEFISH**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/15-year plan**
South Atlantic Snapper-Grouper	**YELLOWTAIL SNAPPER**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	11/10-year plan**
South Atlantic Snapper-Grouper	**RED GROUPER**	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	**BLACK SEA BASS**	SAFMC		Yes		Yes	N/A	reduce mortality continue rebuilding	3/10-year plan**
South Atlantic Snapper-Grouper	**GAG**	SAFMC		Yes	No - rebuilding		No	reduce mortality continue rebuilding[2]	12/15-year plan**

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	**MUTTON SNAPPER**	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	**GREATER AMBERJACK**	SAFMC		No	No		No	N/A	N/A
South Atlantic Snapper-Grouper	**SCAMP**	SAFMC		No	No		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**WHITE GRUNT**	SAFMC		No	No		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**GRAY (MANGROVE) SNAPPER**	SAFMC		No	No		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**BLUE RUNNER**	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**CREVALLE JACK**	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**SPADEFISH**	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	**SHEEPSHEAD**	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
Atlantic Coast Red Drum	**RED DRUM**	SAFMC		Yes[11]	Yes		N/A	reduce mortality continue rebuilding	year 12 of plan*
Gulf of Mexico / South Atlantic Spiny Lobster	**SPINY LOBSTER**	SAFMC / GMFMC		No	No		No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**KING MACKEREL - GULF GROUP**	SAFMC / GMFMC		No	Yes		N/A	continue rebuilding	year 17 of plan*
	KING MACKEREL - ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**SPANISH MACKEREL - GULF GROUP**	SAFMC / GMFMC		No	No		No	N/A	N/A
	SPANISH MACKEREL - ATLANTIC GROUP	SAFMC / GMFMC		No		No	No	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**LITTLE TUNNY**	SAFMC/ GMFMC		No	No		No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**DOLPHIN**	SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**COBIA**	SAFMC/ GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	**BLUEFISH (GULF OF MEXICO ONLY)**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Gulf of Mexico Stone Crab	**STONE CRAB**	GMFMC		No	No		No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Mexico Shrimp	**BROWN SHRIMP**	GMFMC	No			No	No	N/A	N/A
Gulf of Mexico Shrimp	**PINK SHRIMP**	GMFMC	No			No	No	N/A	N/A
Gulf of Mexico Shrimp	**WHITE SHRIMP**	GMFMC	No			No	No	N/A	N/A
Gulf of Mexico Shrimp	**ROYAL RED SHRIMP**	GMFMC	No		Undefined		Unknown	N/A	N/A
Gulf of Mexico Shrimp	**ROCK SHRIMP**	GMFMC	Undefined		Undefined		Unknown	N/A	N/A
Gulf of Mexico Shrimp	**SEABOB SHRIMP**	GMFMC	Undefined		Undefined		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**RED SNAPPER**	GMFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	12/29-year plan**
Reef Fish Resources of the Gulf of Mexico	**RED GROUPER**	GMFMC		Yes	Yes		N/A	reduce mortality rebuilding program	not submitted
Reef Fish Resources of the Gulf of Mexico	**GREATER AMBERJACK**	GMFMC		No	Yes		N/A	rebuilding program	not submitted
Reef Fish Resources of the Gulf of Mexico	**VERMILION SNAPPER**	GMFMC		Yes	Unknown		Unknown	reduce mortality	N/A
Reef Fish Resources of the Gulf of Mexico	**GAG**	GMFMC		No	No		No	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**GRAY TRIGGERFISH**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**MUTTON SNAPPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**GRAY (MANGROVE) SNAPPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**LANE SNAPPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**YELLOWTAIL SNAPPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	**YELLOWEDGE GROUPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	**SNOWY GROUPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**BLACK GROUPER**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	**SCAMP**	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Gulf of Mexico Red Drum	**RED DRUM**	GMFMC		Yes[11]	Yes		N/A	continue rebuilding	year 12 of plan*
Caribbean Reef Fish[12]	**SILK SNAPPER**	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[12]	**YELLOWTAIL SNAPPER**	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Spiny Lobster[13]	**SPINY LOBSTER**	CFMC	No		No		No	N/A	N/A
Caribbean Queen Conch[14]	**QUEEN CONCH**	CFMC	Yes		Yes		N/A	reduce mortality continue rebuilding	year 6 of plan*
	CALIFORNIA CENTRAL VALLEY CHINOOK								
West Coast Salmon	**SACRAMENTO RIVER FALL**	PFMC		No		No	No	N/A	N/A
	NORTHERN CALIFORNIA COAST CHINOOK								
West Coast Salmon	**KLAMATH RIVER FALL (KLAMATH AND TRINITY RIVERS)**	PFMC		No		No	No	N/A	N/A
	OREGON COAST CHINOOK								

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	**SOUTHERN OREGON (Aggregate of fall and spring stocks in all streams south of Elk River; Rogue River fall stock is used to indicate relative abundance and ocean contribution rates)**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**CENTRAL AND NORTHERN OREGON (Aggregate of fall and spring stocks in all streams from the Elk River to just south of the Columbia River)**	PFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	COLUMBIA RIVER BASIN CHINOOK								
West Coast Salmon	**NORTH LEWIS RIVER FALL (ESA Threatened 1999)**	PFMC		N/A[15] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	**LOWER RIVER HATCHERY FALL**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**LOWER RIVER HATCHERY SPRING**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**SPRING CREEK HATCHERY (FALL)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**SNAKE RIVER FALL (ESA Threatened 1992)**	PFMC		N/A[15] Exception 3		N/A	N/A	N/A	N/A
	OREGON PRODUCTION INDEX AREA COHO								
West Coast Salmon	**OREGON COASTAL NATURAL comprised of Southern, South-Central, North-Central, and Northern Oregon stocks. (Northern Stocks - ESA Threatened 1998; Southern Stock - ESA Threatened 1997)[16]**	PFMC		N/A[15] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	**COLUMBIA RIVER LATE (HATCHERY)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**COLUMBIA RIVER EARLY (HATCHERY)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
	WASHINGTON COASTAL COHO								
West Coast Salmon	**WILLAPA BAY (HATCHERY)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**GRAYS HARBOR**	PFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	**QUINAULT (HATCHERY)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**QUEETS**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**HOH**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**QUILLAYUTE FALL**	PFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	**QUILLAYUTE SUMMER (HATCHERY)**	PFMC		N/A[15] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	**WESTERN STRAIT OF JUAN DE FUCA (Sekiu, Hoko, Clallam, Pysht, East and West, and Lyre Rivers and miscellaneous streams west of the Elwha River)**	PFMC		No		No	No	N/A	N/A
	PUGET SOUND COHO								
West Coast Salmon	**EASTERN STRAIT OF JUAN DE FUCA (Streams east of Salt Creek through Chimacum Creek)**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**HOOD CANAL**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**SKAGIT**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**STILLAGUAMISH**	PFMC		No		No	No	N/A	N/A
West Coast Salmon	**SNOHOMISH**	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	**PACIFIC (CHUB) MACKEREL**	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	**PACIFIC SARDINE**	PFMC		No		No	No	N/A	N/A
Coastal Pelagic Species	**JACK MACKEREL**	PFMC		No	Undefined		Unknown	N/A	N/A
Coastal Pelagic Species	**NORTHERN ANCHOVY - CENTRAL SUBPOPULATION**	PFMC		No	Undefined		Unknown	N/A	N/A
	NORTHERN ANCHOVY - NORTHERN SUBPOPULATION	PFMC	Undefined		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Coastal Pelagic Species	**MARKET SQUID**	PFMC	Undefined		Undefined		Unknown	N/A	N/A
Pacific Coast Groundfish	**LINGCOD**	PFMC		No		Yes	N/A	continue rebuilding	3/10-year rebuilding analysis[17]
Pacific Coast Groundfish	**PACIFIC OCEAN PERCH**	PFMC		No		Yes	N/A	continue rebuilding	3/42-year rebuilding analysis[18]
Pacific Coast Groundfish	**BOCACCIO**	PFMC		No		Yes	N/A	continue rebuilding	3/110-year rebuilding analysis[18]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	**CANARY ROCKFISH**	PFMC		No		Yes	N/A	continue rebuilding	2/76-year rebuilding analysis[18]
Pacific Coast Groundfish	**DARKBLOTCHED ROCKFISH**	PFMC		No		Yes	N/A	continue rebuilding	1/47-year rebuilding analysis[18]
Pacific Coast Groundfish	**WIDOW ROCKFISH**	PFMC		No		Yes	N/A	continue rebuilding	1/38-year rebuilding analysis[18]
Pacific Coast Groundfish	**PACIFIC WHITING**	PFMC		Yes		Yes	N/A	rebuilding program	to be developed[19]
Pacific Coast Groundfish	**BANK ROCKFISH**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**SHORTSPINE THORNYHEAD**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**LONGSPINE THORNYHEAD**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**YELLOWTAIL ROCKFISH**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**SABLEFISH**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**DOVER SOLE**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**ENGLISH SOLE**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**PETRALE SOLE**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**CHILIPEPPER ROCKFISH**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**ARROWTOOTH FLOUNDER**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**BLACK ROCKFISH (NORTH)**	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	**PACIFIC COD**	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	**REX SOLE**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**SAND SOLE**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**STARRY FLOUNDER**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**BLACKGILL ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**BLUE ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	**BROWN ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**GOPHER ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**SPLITNOSE ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**VERMILION ROCKFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**SPINY DOGFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**CABEZON**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	**CALIFORNIA SCORPIONFISH**	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Western Pacific Pelagics	**YELLOWFIN TUNA - CENTRAL WESTERN PACIFIC**	WPFMC	Undefined		No		No[20]	N/A	N/A
	YELLOWFIN TUNA - EASTERN TROPICAL PACIFIC	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**ALBACORE - SOUTH PACIFIC**	WPFMC	Undefined		No		No	N/A	N/A
	ALBACORE - NORTH PACIFIC	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**SKIPJACK TUNA - CENTRAL WESTERN PACIFIC**	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**BIGEYE TUNA (PACIFIC)**	WPFMC	Undefined		No		No[21]	N/A	N/A
Western Pacific Pelagics	**STRIPED MARLIN**	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**SWORDFISH (PACIFIC)**	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**BLUE MARLIN (PACIFIC)**	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	**SHORTBILL SPEARFISH (PACIFIC)**	WPFMC	Undefined		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Western Pacific Pelagics	**WAHOO (PACIFIC)**	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	**MAHIMAHI (PACIFIC) (DORADO)**	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	**MOONFISH (OPAH)**	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Gulf of Alaska Groundfish	**WALLEYE POLLOCK - WESTERN/CENTRAL**	NPFMC		No		No	No	N/A	N/A
	WALLEYE POLLOCK - EASTERN	NPFMC		No		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	**PACIFIC COD**	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**SABLEFISH**	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**SHORTSPINE THORNYHEAD**	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**ARROWTOOTH FLOUNDER**	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**PACIFIC OCEAN PERCH - WESTERN**	NPFMC		No		No	No	N/A	N/A
	PACIFIC OCEAN PERCH - CENTRAL	NPFMC		No		No	No	N/A	N/A
	PACIFIC OCEAN PERCH - EASTERN	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**NORTHERN ROCKFISH**	NPFMC		No		No	No	N/A	N/A
Gulf of Alaska Groundfish	**BUTTER SOLE**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**DOVER SOLE**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**FLATHEAD SOLE**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**REX SOLE**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**ROCK SOLE - NORTHERN**	NPFMC		No		Unknown	Unknown	N/A	N/A
	ROCK SOLE - SOUTHERN	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**DUSKY ROCKFISH**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**YELLOWEYE ROCKFISH**	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	**ROUGHEYE ROCKFISH**	NPFMC		No		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	**SHORTRAKER ROCKFISH**	NPFMC		No		Unknown	Unknown	N/A	N/A
Alaska High Seas Salmon	**PINK SALMON**	NPFMC		No		No	No	N/A	N/A
Alaska High Seas Salmon	**SOCKEYE SALMON**	NPFMC		No		No	No	N/A	N/A
Alaska High Seas Salmon	**CHUM SALMON**	NPFMC		No		No	No	N/A	N/A
Alaska High Seas Salmon	**COHO SALMON**	NPFMC		No		No	No	N/A	N/A
Alaska High Seas Salmon	**CHINOOK SALMON**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**WALLEYE POLLOCK - EASTERN BERING SEA**	NPFMC		No		No	No	N/A	N/A
	WALLEYE POLLOCK - ALEUTIAN ISLANDS	NPFMC		No		Unknown	Unknown	N/A	N/A
	WALLEYE POLLOCK - BOGOSLOF	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**PACIFIC COD**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**YELLOWFIN SOLE**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**GREENLAND TURBOT**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**ARROWTOOTH FLOUNDER**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**ROCK SOLE**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**FLATHEAD SOLE**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**SABLEFISH - EASTERN BERING SEA**	NPFMC		No		No	No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	SABLEFISH - ALEUTIAN ISLANDS	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**PACIFIC OCEAN PERCH**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**ATKA MACKEREL**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**ALASKA PLAICE**	NPFMC		No		No	No	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**SQUID BERRYTEUTHIS MAGISTER**	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**SHORTSPINE THORNYHEAD**	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**SHORTRAKER ROCKFISH**	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	**ROUGHEYE ROCKFISH**	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**REX SOLE**	NPFMC		Unknown[23]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	**DUSKY ROCKFISH**	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	**GOLDEN KING CRAB - ALEUTIAN ISLANDS**	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	**RED KING CRAB - BRISTOL BAY**	NPFMC		No		No	No	N/A	N/A
	RED KING CRAB - NORTON SOUND	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	**BERING SEA SNOW CRAB**	NPFMC		No		No - rebuilding	No	continue rebuilding[2]	3/10-year plan
Alaska Weathervane Scallops	**ALASKA SCALLOPS**	NPFMC		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**BIGEYE TUNA (ATLANTIC)**	HMS		Yes		Yes	N/A	reduce mortality rebuilding program	not internationally implemented[25]
Atlantic Tunas, Swordfish and Sharks	**ALBACORE (NORTH ATLANTIC)**	HMS		Yes		Yes	N/A	reduce mortality rebuilding program	not submitted[26]
Atlantic Tunas, Swordfish and Sharks	**BLUEFIN TUNA (WEST ATLANTIC)**	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	5/20-year plan[27]
Atlantic Tunas, Swordfish and Sharks	**YELLOWFIN TUNA (WEST ATLANTIC)**	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**SWORDFISH (NORTH ATLANTIC)**	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	4/10-year plan[28]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	**SANDBAR SHARK**	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[29]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	**BLACKTIP SHARK**	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[29]
Atlantic Tunas, Swordfish and Sharks	**BULL SHARK**	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[29]
Atlantic Tunas, Swordfish and Sharks	**FINETOOTH SHARK**	HMS		Yes		No	No	reduce mortality	N/A
Atlantic Tunas, Swordfish and Sharks	**ATLANTIC SHARPNOSE SHARK**	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**BLACKNOSE SHARK**	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**BONNETHEAD SHARK**	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**SHORTFIN MAKO SHARK**	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	**SMOOTH DOGFISH**	HMS		Unknown		Unknown	Unknown	N/A	N/A

* Pre-SFA Rebuilding Plan with no timeline defined.

** Pre-SFA Rebuilding Plan with a timeline defined.

***For the Northeast multispecies fishery, the values for the most recent fishing mortality rates and biomass levels that were used to determine the status of the stocks in the Northeast Multispecies Fishery Management Plan (with the exception of silver hake, red hake, and offshore hake) are those indicated in the document titled "Re-Evaluation of Biological Reference Points for New England Groundfish" (Northeast Fisheries Science Center Reference Document 02-04). The Northeast multispecies fishery is currently managed consistent with a Federal Court order, and a Settlement Agreement among various parties. In light of these circumstances, the biomass and fishing mortality thresholds utilized for determinations in this report were those contained in the above document, and not the approved Amendment 9 parameters. Unless otherwise noted, biomass thresholds were 50% Bmsy and fishing mortality thresholds were Fmsy (or proxies).

1. The New England Fishery Management Council will be notified upon publication of this report that this stock is overfished and they are required to submit a rebuilding program within one year of that date.

2. This stock is currently above the minimum stock size threshold; however, it was previously below this level and rebuilding must continue until the stock is at a level consistent with MSY.

3. Last year's report was in error, which indicated this stock was in year 3 of the rebuilding plan, when in fact, it was in year 2.

4. Last year's listing was in error, which indicated this stock was not undergoing overfishing. There is no approved overfishing definition contained in the FMP to make a determination of fishing mortality rate.

5. While the biomass level is known, determining whether the stock is approaching an overfished condition requires an additional level of analysis which has not been done.

6. Although this stock is currently listed as overfishing occurring, the most recent assessment, SAW 34, was not able to precisely determine current exploitation rates (although all candidate values were above a candidate Fthreshold). Accordingly, the status of this stock with respect to fishing mortality rate is unchanged, pending an updated stock assessment.

7. Last year's listing was in error, which indicated this stock was overfished. There is currently no definition contained in the FMP to make a determination of biomass target; however, based on the current NOAA Fisheries recommended biomass threshold, the biomass estimates indicate the stock is overfished.

8. While the proposed target fishing mortality rate, fishing mortality threshold, and biomass threshold contained in the FMP are consistent with SFA provisions, there is no approved biomass target. Therefore, the rebuilding plan is not in conformance with SFA guidelines. Also, last year's report was in error, which indicated this stock was in year 2 of the rebuilding plan, when in fact, it was in year 3.

9. The most recent assessment (SAW-35) could not make a quantitative estimate of the current fishing mortality rate (F); therefore, no comparison with the F threshold specified in the FMP could be made.

10. Last year's listing was in error, which indicated that no overfishing was occurring and that there was no definition for determining the overfished status. The overfished definition for Golden Crab was fully approved; however, the estimate of MSY was rejected, and thus, the overfished status cannot be determined at this time. Since the overfishing definition is based on an estimate of MSY, the fishing mortality rate also cannot be determined at this time.

11. Although the fishery in the EEZ is closed and fishing mortality is likely very low in federal waters, there remains an active fishery in states' waters.

12. The full name for this FMP is the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands.

13. The full name for this FMP is the Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands.

14. The full name for this FMP is the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.

15. The Salmon FMP contains three exceptions to the application of overfishing criteria and subsequent Council actions for stocks or stock complexes with conservation objectives: Exceptions: (1) hatchery stocks, (2) stocks for which Council management actions have inconsequential impacts, and (3) stocks listed under the ESA.

16. Oregon Coastal Natural (OCN) coho are managed subject to the provisions of Amendment 13 to the Salmon FMP. The southern stock complex of the Oregon Coastal Natural coho is listed as a threatened species under the ESA as part of the Southern Oregon / Northern California Coasts Coho ESU (May 6, 1997) and the northern components are listed as a threatened species (August 10, 1998); currently both meet exception 3. The northern components status has changed from the 2001 report because the U.S. Court of Appeals for the Ninth Circuit granted interveners-appellants an emergency motion to stay the judgement in the Alsea Valley Alliance v. Evans decision. As a result, OCN are again listed as threatened under the ESA. However, the OCN stocks have met their management objectives in recent years.

17. Last year's report listed this stock as having a rebuilding plan under development, when in fact, it has been rebuilding under interim measures since 1999. A recent court ruling (National Resource Defense Council, Inc. v. Evans) determined that rebuilding plans under the Pacific Coast Groundfish Fishery Management Plan (FMP) must be in the form of FMP amendments or proposed regulations. Therefore, portions of Amendment 12 to the FMP that provided a framework for rebuilding plans were set aside. A new draft FMP amendment (Amendment 16) that includes the rebuilding plans for cowcod, darkblotched rockfish, Pacific ocean perch, and lingcod is expected to be adopted by the Pacific Fishery Management Council (PFMC) in 2003. Rebuilding plans for bocaccio, canary rockfish, widow rockfish, yelloweye rockfish, and Pacific whiting are expected to be developed in 2003. In the interim before Amendment 16 is implemented, seven of the overfished species are being managed based on a rebuilding analysis and associated rebuilding measures adopted by the PFMC.

18. A recent court ruling (National Resource Defense Council, Inc. v. Evans) determined that rebuilding plans under the Pacific Coast Groundfish Fishery Management Plan (FMP) must be in the form of FMP amendments or proposed regulations. Therefore, portions of Amendment 12 to the FMP that provided a framework for rebuilding plans were set aside. A new draft FMP amendment (Amendment 16) that includes the rebuilding plans for cowcod, darkblotched rockfish, Pacific ocean perch, and lingcod is expected to be adopted by the Pacific Fishery Management Council (PFMC) in 2003. Rebuilding plans for bocaccio, canary rockfish, widow rockfish, yelloweye rockfish, and Pacific whiting are expected to be developed in 2003. In the interim before Amendment 16 is implemented, seven of the overfished species are being managed based on a rebuilding analysis and associated rebuilding measures adopted by the PFMC.

19. The Pacific Fishery Management Council was notified on April 15, 2002 that this stock is overfished and they are required to submit a rebuilding program within one year of that date.

20. Nearing full exploitation, but if declines recently in recruitment indicates a return to lower productivity levels, the current level of fishing would not be sustainable.

21. Nearing full exploitation on a stock-wide basis; however, recent fishing mortality rates, particularly in the tropical region where most catches occur, are near or above commonly used overfishing reference points.

22. The fishing mortality rate determination for this species complex (Shortraker/Rougheye Rockfish complex) is "not being subjected to overfishing" based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.

23. The fishing mortality rate determination for this species complex (Other Flatfish complex) is "not being subjected to overfishing" based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.

24. The fishing mortality rate determination for this species complex (Other Rockfish complex) is "not being subjected to overfishing" based on Longspine Thornyhead and Shortspine Thornyhead; no fishing mortality rate determination can be made about the other species.

25. For the overfished Atlantic bigeye tuna, the HMS FMP established the foundation to develop an international 10-year rebuilding program. While steps have been taken internationally to pursue recovery of this stock, an international rebuilding program has not yet been adopted. NOAA Fisheries is continuing to work through ICCAT to establish an international rebuilding program and is working domestically to monitor its fisheries and promote conservation.

26. For the overfished North Atlantic albacore, NOAA Fisheries is working through ICCAT to establish an international rebuilding program. Domestically, NOAA Fisheries is monitoring its fisheries and promoting conservation.

27. International rebuilding program implemented in 1999. The SCRS conducted an assessment in summer 2002 but that assessment had not been officially adopted by ICCAT, as of August 1, 2002.

28. International rebuilding program implemented in 2000.

29. Although a rebuilding program was developed, it could not be implemented under a court-approved settlement agreement that prevented a commercial quota reduction until a peer review was completed. The independent peer review was conducted in accordance with the court-approved settlement agreement and found that the scientific conclusions and management recommendations contained in the last stock assessment were not based on scientifically reasonable uses of the appropriate fisheries stock assessment techniques. A new assessment was conducted in the summer/fall of 2002, but was not complete, as of August 1, 2002.

Table 8. Summary of stock status for minor species contained in federal fishery management plans.

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Salmon	Atlantic Salmon	NEFMC		No		Yes	N/A	rebuild-ESA listed	not required[1]
Northeast Multispecies	Ocean Pout***	NEFMC		No		Yes	N/A	rebuilding program	not submitted
Northeast Multispecies	Atlantic Halibut***	NEFMC		Unknown		Yes	N/A	continue rebuilding	under reconsideration per court order
Northeast Multispecies	Offshore Hake	NEFMC		Undefined[2]		No	Unknown[3]	N/A	N/A
South Atlantic Golden Crab	Jonah Crab	SAFMC	Undefined		Undefined		Unknown	N/A	N/A
South Atlantic Golden Crab	Red Crab	SAFMC	Undefined		Undefined		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Speckled Hind	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	Warsaw Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	Black Grouper	SAFMC		Yes	Yes		N/A	reduce mortality continue rebuilding	3/15-year plan**
South Atlantic Snapper-Grouper	Red Porgy	SAFMC		No		Yes	N/A	continue rebuilding	3/18-year plan
South Atlantic Snapper-Grouper	Goliath Grouper (Jewfish)	SAFMC		No[4]	Yes		N/A	continue rebuilding	12/15-year plan**
South Atlantic Snapper-Grouper	Nassau Grouper	SAFMC		No[4]	Yes		N/A	continue rebuilding	12/15-year plan**

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Wreckfish	SAFMC		No	No		Unknown[3]	N/A	N/A
South Atlantic Snapper-Grouper	Yellowedge Grouper	SAFMC		No	No		Unknown[3]	N/A	N/A
South Atlantic Snapper-Grouper	Lane Snapper	SAFMC		No	No		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Gray Triggerfish	SAFMC		No	No		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Queen Triggerfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Ocean Triggerfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellow Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Bar Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Lesser Amberjack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Almaco Jack	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Banded Rudderfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Black Margate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Porkfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Margate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Tomtate	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Smallmouth Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	French Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Spanish Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Cottonwick	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Sailors Choice	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Blue Stripe Grunt	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Hogfish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Puddingwife	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Black Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Queen Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Schoolmaster	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Blackfin Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Cubera Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Mahogany Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Dog Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Silk Snapper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Blueline Tilefish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Sand Tilefish	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Bank Sea Bass	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Rock Sea Bass	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Rock Hind	SAFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Snapper-Grouper	Graysby	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Coney	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Red Hind	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Misty Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellowmouth Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Tiger Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Yellowfin Grouper	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Grass Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Jolthead Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Saucereye Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Whitebone Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Knobbed Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Longspine Porgy	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Snapper-Grouper	Scup	SAFMC		Unknown	Unknown		Unknown	N/A	N/A
South Atlantic Corals[5]	Fire Corals	SAFMC	No[4]		Undefined		Unknown	N/A	N/A
South Atlantic Corals[5]	Hydrocorals	SAFMC	No[4]		Undefined		Unknown	N/A	N/A
South Atlantic Corals[5]	Octocorals	SAFMC	No[4]		Undefined		Unknown	N/A	N/A
South Atlantic Corals[5]	Stony Corals	SAFMC	No[4]		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
South Atlantic Corals[5]	Black Corals	SAFMC	No[4]		Undefined		Unknown	N/A	N/A
Gulf of Mexico / South Atlantic Spiny Lobster	Slipper Lobster	SAFMC / GMFMC	Undefined		Undefined		Unknown	N/A	N/A
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Cero Mackerel	SAFMC / GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Gulf of Mexico Corals[6]	Fire Corals	GMFMC	No[4]		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals[6]	Hydrocorals	GMFMC	No[4]		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals[6]	Octocorals	GMFMC	No[4]		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals[6]	Stony Corals	GMFMC	No[4]		Undefined		Unknown	N/A	N/A
Gulf of Mexico Corals[6]	Black Corals	GMFMC	No[4]		Undefined		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Nassau Grouper	GMFMC		No[4]	Yes		N/A	continue rebuilding	year 5 of plan*
Reef Fish Resources of the Gulf of Mexico	Goliath Grouper (Jewfish)	GMFMC		No[4]	Yes		N/A	continue rebuilding	year 12 of plan*
Reef Fish Resources of the Gulf of Mexico	Lesser Amberjack	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Almaco Jack	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Banded Rudderfish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Queen Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Schoolmaster	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Blackfin Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Cubera Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	Dog Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Mahogany Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Silk Snapper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Wenchman	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Goldface Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Blackline Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Anchor Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Blueline Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Tilefish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Rock Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Speckled Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Red Hind	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Misty Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Warsaw Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Yellowmouth Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Yellowfin Grouper	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Hogfish	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Reef Fish Resources of the Gulf of Mexico	Dwarf Sand Perch	GMFMC		Unknown	Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Reef Fish Resources of the Gulf of Mexico	Sand Perch	GMFMC		Unknown	Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Nassau Grouper	CFMC	No[4]		Yes		N/A	continue rebuilding	year 12 of plan*
Caribbean Reef Fish[7]	Goliath Grouper (Jewfish)	CFMC	No[4]		Yes		N/A	continue rebuilding	year 9 of plan*
Caribbean Reef Fish[7]	Ocean Surgeonfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Doctorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blue Tang	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Frogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Flamefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Conchfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Trumpetfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Scrawled Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Queen Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Whitespotted Filefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Ocean Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Black Durgon	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sargassum Triggerfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Redlip Blenny	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Peacock Flounder	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Yellow Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blue Runner	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Horse-eye Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Black Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Bar Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Greater Amberjack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Almaco Jack	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Longsnout Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Foureye Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Spotfin Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Banded Butterflyfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Redspotted Hawkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Flying Gurnard	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Atlantic Spadefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Neon Goby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Rusty Goby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Royal Gramma	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Porkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Margate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Tomtate	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	French Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	White Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Bluestriped Grunt	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Longspine Squirrelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blackbar Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Cardinal Soldierfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Spanish Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Creole Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellowcheek Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellowhead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Clown Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Puddingwife	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Pearly Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Green Razorfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Hogfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Bluehead Wrasse	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Black Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Queen Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Mutton Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Schoolmaster	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blackfin Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Gray Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Dog Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Mahogany Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Lane Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Wenchman	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Vermilion Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blackline Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sand Tilefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellow Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Spotted Goatfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Chain Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Green Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Goldentail Moray	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Batfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Goldspotted Eel	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellowhead Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Dusky Jawfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Spotted Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Honeycomb Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Scrawled Cowfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Smooth Trunkfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Cherubfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Queen Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Rock Beauty	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Gray Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	French Angelfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sergeant Major	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blue Chromis	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sunshinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Yellowtail Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Dusky Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Beaugregory	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Bicolor Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Threespot Damselfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Bigeye	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Glasseye Snapper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Midnight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Blue Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Striped Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Rainbow Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Princess Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Queen Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Redband Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Redtail Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Redfin Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Stoplight Parrotfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	High-hat	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Jackknife-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Spotted Drum	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Scorpionfishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Rock Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Graysby	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellowedge Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Coney	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Red Hind	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Red Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Misty Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Butter Hamlet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Swissguard Basslet	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Yellowfin Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Tiger Grouper	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Creole-fish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Greater Soapfish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Orangeback Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Lantern Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Reef Fish[7]	Tobaccofish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Harlequin Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Chalk Bass	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Caribbean Tonguefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sea Bream	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Jolthead Porgy	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sheepshead Porgy	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Pluma	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Seahorses	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Pipefishes	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sand Diver	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Sharpnose Puffer	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Reef Fish[7]	Porcupinefish	CFMC	Unknown		Unknown		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Atlantic Triton's Trumpet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Cameo Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Caribbean Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Caribbean Vase	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Flame Helmet	CFMC	Undefined		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Queen Conch[8]	Green Star Shell	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Hawkwing Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Milk Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Roostertail Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	True Tulip	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	West Indian Fighting Conch	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Queen Conch[8]	Whelk (West Indian Top Shell)	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Hydrocorals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Soft Corals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Gorgonian Corals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Hard Corals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Black Corals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	False Corals	CFMC	No[4]		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Sponges	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Hydroids	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Colonial Anemones	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Annelid Worms	CFMC	Unknown		Undefined		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Caribbean Corals[9]	Other Gastropods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Bivalves	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Cephalopods	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Crustaceans	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Bryozoans	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Feather Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Sea Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Brittle and Basket Stars	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Sea Urchins	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Sea Cucumbers	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Tunicates	CFMC	Unknown		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Green Algae	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Red Algae	CFMC	Undefined		Undefined		Unknown	N/A	N/A
Caribbean Corals[9]	Seagrasses	CFMC	Undefined		Undefined		Unknown	N/A	N/A
	CALIFORNIA CENTRAL VALLEY CHINOOK								
West Coast Salmon	Sacramento River Spring (Central Valley Spring - ESA Threatened 1999)	PFMC		N/A[10] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	Sacramento River Winter (ESA Endangered 1994)	PFMC		N/A[10] Exception 3		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	NORTHERN CALIFORNIA COAST CHINOOK								
West Coast Salmon	Eel, Mattole, Mad, and Smith Rivers[11] (Fall and Spring) (Eel, Mattole, and Mad River stocks - ESA Threatened 1999)	PFMC		N/A[10] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	Klamath River Spring (Klamath and Trinity Rivers)	PFMC		Unknown[12]		Unknown[12]	Unknown	N/A	N/A
	COLUMBIA RIVER BASIN CHINOOK								
West Coast Salmon	Upper Willamette Spring (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Mid-River Bright Hatchery (Fall)	PFMC		N/A[10] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	Klickitat, Warm Springs, John Day, and Yakima Rivers (Spring)	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Snake River Spring / Summer (ESA Threatened 1992)	PFMC		N/A[10] Exception 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Upper River Bright (Fall)	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Upper River Summer	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Upper River Spring (ESA Endangered 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
	WASHINGTON COAST CHINOOK								
West Coast Salmon	Willapa Bay Fall (natural)	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Willapa Bay Fall (hatchery)	PFMC		N/A[10] Exception 1		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	Grays Harbor Fall	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Grays Harbor Spring	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Quinault Fall	PFMC		N/A[10] Exception 1		N/A	N/A	N/A	N/A
West Coast Salmon	Queets Fall	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Queets Spring / Summer	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Hoh Fall	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Hoh Spring / Summer	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Quillayute Fall	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Quillayute Spring / Summer	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Hoko Summer / Fall (Western Strait of Juan de Fuca)	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
	PUGET SOUND CHINOOK								
West Coast Salmon	Eastern Strait of Juan de Fuca Summer / Fall (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Skokomish Summer / Fall (Hood Canal) (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Nooksack Spring (early) (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	Skagit Summer / Fall (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Skagit Spring (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Stillaguamish Summer / Fall (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Snohomish Summer / Fall (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Cedar River Summer / Fall (Lake Washington) (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	White River Spring (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Green River Summer / Fall Threatened (1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
West Coast Salmon	Nisqually River Summer / Fall (South Puget Sound) (ESA Threatened 1999)	PFMC		N/A[10] Exceptions 2 & 3		N/A	N/A	N/A	N/A
	SOUTHERN BRITISH COLUMBIA CHINOOK								
West Coast Salmon	Coastal Stocks[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Fraser River[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
	OREGON PRODUCTION INDEX AREA COHO								

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
West Coast Salmon	Central California Coast (ESA Threatened 1996)	PFMC		N/A[10] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	Northern California (ESA Threatened 1997)	PFMC		N/A[10] Exception 3		N/A	N/A	N/A	N/A
West Coast Salmon	Columbia River (Natural)	PFMC		Unknown[12]		Unknown[12]	Unknown	N/A	N/A
	PUGET SOUND COHO								
West Coast Salmon	South Puget Sound (Hatchery)	PFMC		N/A[10] Exception 1		N/A	N/A	N/A	N/A
	SOUTHERN BRITISH COLUMBIA COAST COHO								
West Coast Salmon	Coastal Stocks[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Fraser River[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
	PINK (ODD-NUMBERED YEARS)								
West Coast Salmon	Puget Sound[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
West Coast Salmon	Fraser River[13]	PFMC		N/A[10] Exception 2		N/A	N/A	N/A	N/A
Pacific Coast Groundfish	Cowcod	PFMC		No		Yes	N/A	continue rebuilding	2/98-year rebuilding analysis[14]
Pacific Coast Groundfish	Yelloweye Rockfish	PFMC		No		Yes	N/A	rebuilding program	to be developed[15]
Pacific Coast Groundfish	Shortbelly Rockfish	PFMC		No		No	No	N/A	N/A
Pacific Coast Groundfish	Silvergrey Rockfish	PFMC		No		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	Butter Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Curlfin Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Flathead Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Pacific Sanddab	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Rock Sole	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Aurora Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Black-and-Yellow Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Bronzespotted Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Calico Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	China Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Copper Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Dusky Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Flag Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Grass Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Greenblotched Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Greenspotted Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Greenstriped Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Harlequin Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	Honeycomb Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Kelp Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Mexican Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Olive Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Pink Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Quillback Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Redbanded Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Redstripe Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Rosethorn Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Rosy Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Rougheye Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Sharpchin Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Shortraker Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Speckled Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Squarespot Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Starry Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Stripetail Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Tiger Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Pacific Coast Groundfish	Yellowmouth Rockfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Leopard Shark	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Soupfin Shark	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Big Skate	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	California Skate	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Longnose Skate	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Ratfish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Finescale Codling	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Pacific Rattail	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Kelp Greenling	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Pacific Coast Groundfish	Treefish	PFMC		Unknown		Unknown	Unknown	N/A	N/A
Western Pacific Crustaceans	Spiny Lobster (2 species)	WPFMC	No[16]		Unknown		Unknown	N/A	N/A
Western Pacific Crustaceans	Slipper Lobster (3 species)	WPFMC	No[16]		Unknown		Unknown	N/A	N/A
Western Pacific Crustaceans	Kona Crab	WPFMC	Undefined		Undefined		Unknown	N/A	N/A
Western Pacific Precious Corals[17]	Pink Corals (3 species)	WPFMC		Unknown[18]		Unknown[18]	Unknown	N/A	N/A
Western Pacific Precious Corals[17]	Gold Corals (4 species)	WPFMC		Unknown[18]		Unknown[18]	Unknown	N/A	N/A
Western Pacific Precious Corals[17]	Bamboo Corals (2 species)	WPFMC		Unknown[18]		Unknown[18]	Unknown	N/A	N/A
Western Pacific Precious Corals[17]	Black Corals (3 species)	WPFMC		Unknown[18]		Unknown[18]	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bottomfish and Seamount Groundfish of the Western Pacific	Pelagic Armorhead	WPFMC	Undefined		Yes		N/A	continue rebuilding	16/18-year plan**[19]
Bottomfish and Seamount Groundfish of the Western Pacific	Seabass - hapuu'upu	WPFMC	Undefined		No		No[20]	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Red Snapper - ehu	WPFMC	Undefined		No		No[20]	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Longtail Snapper - onaga	WPFMC	Undefined		No		No[20]	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Silvermouth Red Snapper - lehi	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Gray Snapper - uku	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Blueline Snapper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Yellowtail Snapper - yellow tail kalekale	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Pink Snapper - opakapaka	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Yelloweye Snapper - yelloweye opakapaka	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper Pristipomoides sieboldii - kalekale	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper Pristipomoides zonatus - gindai	WPFMC	Undefined		No		No	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bottomfish and Seamount Groundfish of the Western Pacific	Giant Trevally - white ulua	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Black Jack - black ulua	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Thicklip Trevally - pig ulua	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Amberjack - kahala	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Blacktip Grouper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Lunartail Grouper	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Ambon Emperor	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Redgill Emperor	WPFMC	Undefined		No		No	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Alfonsin	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Bottomfish and Seamount Groundfish of the Western Pacific	Raftfish	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Skipjack Tuna (Eastern Tropical Pacific)	WPFMC	Undefined		No		No	N/A	N/A
Western Pacific Pelagics	other tuna relatives - Auxis spp.	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
	other tuna relatives - Scomber spp.	WPFMC	Undefined		Unknown		Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
	other tuna relatives - Allothunnus spp.	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Black Marlin	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Pomfret - monchong	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Sailfish (Pacific)	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Pelagic Sharks[21]	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Western Pacific Pelagics	Oilfish	WPFMC	Undefined		Unknown		Unknown	N/A	N/A
Gulf of Alaska Groundfish	Atka Mackerel	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Alaska Plaice	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Deepsea Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	English Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Greenland Turbot	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sand Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Starry Flounder	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowfin Sole	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Aurora Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blackgill Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bocaccio	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Chilipepper	NPFMC		No		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Darkblotched Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Greenstriped Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Harlequin Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Pygmy Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Redbanded Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Redstripe Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sharpchin Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Shortbelly Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Silvergrey Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Splitnose Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Stripetail Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Vermilion Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowmouth Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	C-O Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Curlfin Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Hybrid Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longhead Dab	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Pacific Sanddab	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Petrale Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Roughscale Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Slender Sole	NPFMC		Unknown[22]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Widow Rockfish	NPFMC		Unknown[23]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellowtail Rockfish	NPFMC		Unknown[23]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Canary Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	China Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Copper Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Quillback Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Rosethorn Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Tiger Rockfish	NPFMC		Unknown[24]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Broad Banded Thornyhead	NPFMC		Unknown[25]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longspine Thornyhead	NPFMC		Unknown[25]		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blue Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Brown Cat Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Pacific Sleeper Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Salmon Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Sixgill Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Spiny Dogfish Shark	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Alaska Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Aleutian Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bering Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Big Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Black Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Commander Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Longnose Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Mud Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Whiteblotched Skate	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Armorhead Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Bigmouth Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Blackfin Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Dusky Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Great Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Red Irish Lord	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Ribbed Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Roughspine Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Gulf of Alaska Groundfish	Spinyhead Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Tadpole Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Thorny Sculpin	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Yellow Irish Lord	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Ocotpus Octopus dofleini	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Octopus Octopus leioderma	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Octopus Opisthoteuthis california	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Berryteuthis Magister	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Gonatopsis borealis	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Gonatopsis makko	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Gonatus sp.	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Loligo opalescens	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Moroteuthis robusta	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Gulf of Alaska Groundfish	Squid Onychoteuthis Borealijaponicus	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Squid Onychoteuthis Borealijaponicus	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longspine Thornyhead	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Northern Rockfish	NPFMC		No		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bering Flounder	NPFMC		Unknown[26]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Kamchatka Flounder	NPFMC		Unknown[27]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sharpchin Rockfish	NPFMC		Unknown[28]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Black Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Darkblotched Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Gray Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Harlequin Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Redbanded Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Redbanded Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Silvergrey Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yelloweye Rockfish	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Broad Banded Thornyhead	NPFMC		Unknown[29]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Arctic Flounder	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Butter Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	C-O Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	California Tonguefish	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Curlfin Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Dover Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	English Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Hybrid Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longhead Dab	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Sanddab	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Petrale Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Roughscale Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Sand Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Slender Sole	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Starry Flounder	NPFMC		Unknown[30]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Antlered Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Armorhead Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bigmouth Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blackfin Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Blob Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Brown Irish Lord	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Butterfly Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Calico Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Crested Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Dusky Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Great Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Staghorn Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Plain Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Red Irish Lord	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Ribbed Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Scissortail Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Shorthorn Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Spinyhead Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Tadpole Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Thorny Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Warty Sculpin	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Yellow Irish Lord	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Alaska Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Aleutian Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Bering Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Big Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Black Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands Groundfish	Commander Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Deepsea Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Golden Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Longnose Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Mud Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Okhotsk Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	White-Blotched Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Whitebrow Skate	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Pacific Sleeper Shark	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Salmon Shark	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Spiny Dogfish Shark	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Octopus Octopus dofleini	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands Groundfish	Octopus Opisthoteuthis california	NPFMC		Unknown[31]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	Blue King Crab - Pribilof Islands	NPFMC		No[4]		No	Yes	N/A	N/A
	Blue King Crab - Saint Matthews Island	NPFMC		No[4]		Yes	N/A	continue rebuilding	3/10-year plan
	Blue King Crab - Saint Lawrence Island	NPFMC		No[4]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	Golden King Crab - Pribilof Islands	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
	Golden King Crab - Northern District	NPFMC		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Bering Sea / Aleutian Islands King and Tanner Crabs	Aleutian Islands Scarlet King Crab	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	Red King Crab - Pribilof Islands	NPFMC		No[4]		No	Unknown[3]	N/A	N/A
	Red King Crab - Aleutian Islands	NPFMC		No[4]		Unknown	Unknown	N/A	N/A
Bering Sea / Aleutian Islands King and Tanner Crabs	Tanner Crab - Bering Sea	NPFMC		No[4]		Yes	N/A	continue rebuilding	3/10-year plan
	Tanner Crab - Bering Sea Triangle	NPFMC		Unknown[32]		Unknown	Unknown	N/A	N/A
	Tanner Crab - Bering Sea Grooved	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
	Tanner Crab - Eastern Aleutian Islands	NPFMC		No[4]		Unknown	Unknown	N/A	N/A
	Tanner Crab - Eastern Aleutian Islands Triangle	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
	Tanner Crab - Eastern Aleutian Islands Grooved	NPFMC		Unknown		Unknown	Unknown	N/A	N/A
	Tanner Crab - Asak (Western Aleutians)	NPFMC		No[4]		Unknown	Unknown	N/A	N/A
	Tanner Crab - Western Aleutian Islands Grooved	NPFMC		No[4]		Unknown	Unknown	N/A	N/A
Atlantic Billfishes	Blue Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuilding program	Phase I implemented[33]
Atlantic Billfishes	White Marlin (North Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuilding program	Phase I implemented[33]
Atlantic Billfishes	Sailfish (West Atlantic)	HMS		Yes		Yes	N/A	reduce mortality rebuilding program	not internationally implemented[34]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Billfishes	Spearfish (West Atlantic)	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Skipjack Tuna (West Atlantic)	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Spinner Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Silky Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Dusky Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Bignose Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Narrowtooth Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Galapagos Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Night Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Caribbean Reef Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	39-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Lemon Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Bigeye Sand Tiger Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Nurse Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Scalloped Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Great Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Smooth Hammerhead Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Whale Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Basking Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	White Shark	HMS		Yes		Yes	N/A	reduce mortality continue rebuilding	30-year plan[35]
Atlantic Tunas, Swordfish and Sharks	Caribbean Sharpnose Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smalltail Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Atlantic Angel Shark	HMS		No		No	No	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Porbeagle Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Blue Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Longfin Mako Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Thresher Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigeye Thresher Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Oceanic Whitetip Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Sevengill Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Sixgill Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigeye Sixgill Sharks	HMS		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Iceland Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smallfin Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Deepwater Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Broadgill Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Marbled Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Blotched Cat Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Chain Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Dwarf Catshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Japanese Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Little Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Kitefin Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Flatnose Gulper Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Portuguese Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Greenland Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Lined Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Broadband Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Caribbean Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A

Fishery Management Plan	Stock	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)		Overfished? (Is Biomass below Threshold?)		Approaching Overfished Condition?	Management Action Required	Rebuilding Program Progress
			Pre SFA	Post SFA	Pre SFA	Post SFA			
Atlantic Tunas, Swordfish and Sharks	Great Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smooth Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Fringefin Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Green Lanternshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Cookiecutter Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bigtooth Cookiecutter	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Smallmouth Velvet Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Pygmy Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Roughskin Spiny Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Blainville's Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Cuban Dogfish	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Bramble Shark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	American Sawshark	HMS		Unknown		Unknown	Unknown	N/A	N/A
Atlantic Tunas, Swordfish and Sharks	Florida Smoothhound	HMS		Unknown		Unknown	Unknown	N/A	N/A

* Pre-SFA Rebuilding Plan with no timeline defined.

** Pre-SFA Rebuilding Plan with a timeline defined.

***For the Northeast multispecies fishery, the values for the most recent fishing mortality rates and biomass levels that were used to determined the status of the stocks in the Northeast Multispecies Fishery Management Plan (with the exception of silver hake, red hake, and offshore hake) are those indicated in the document titled "Re-Evaluation of Biological Reference Points for New England Groundfish" (Northeast Fisheries Science Center Reference Document 02-04). The Northeast multispecies fishery is currently managed consistent with a Federal Court order, and a Settlement Agreement among various parties. In light of these circumstances, the biomass and fishing mortality thresholds utilized for determinations in this report were those contained in the above document, and not the approved Amendment 9 parameters. Unless otherwise noted, biomass thresholds were 50% Bmsy and fishing mortality thresholds were Fmsy (or proxies).

1. A formal rebuilding program was not required or submitted because either no fishing is allowed in this fishery, or incidental harvest is limited to levels necessary to meet Endangered Species Act (ESA) requirements. A recovery plan under the ESA is being developed.

2. Last year's listing was in error, which indicated that the fishing mortality rate was Unknown. There is no approved overfishing definition contained in the FMP to make a determination of fishing mortality rate.

3. While the biomass level is known, determining whether the stock is approaching an overfished condition requires an additional level of analysis which has not been done.

4. Fishery in the EEZ is closed; therefore, fishing mortality is very low.

5. The full name for this FMP is the Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic Region.

6. The full name for this FMP is the Coral and Coral Reefs of the Gulf of Mexico.

7. The full name for this FMP is the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands.

8. The full name for this FMP is the Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands.

9. The full name for this FMP is the Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin Islands.

10. The Salmon FMP contains three exceptions to the application of overfishing criteria and subsequent Council actions for stocks or stock complexes with conservation objectives: Exceptions: (1) hatchery stocks, (2) stocks for which Council management actions have inconsequential impacts, and (3) stocks listed under the ESA.

11. The Smith River Chinook is not part of the California Coastal Chinook ESU, which includes the Eel, Mattole, and Mad River stocks. However, there are no conservation objectives defined for the northern coastal chinook stocks. These stocks are managed consistent with NOAA Fisheries jeopardy standard / recovery plans for the California Coastal Chinook ESU. The Smith River stock is therefore also managed under the NOAA Fisheries jeopardy standard / recovery plans.

12. Amendment 14 to the Salmon FMP added these stocks to the list of stocks managed under the FMP but did not identify conservation objectives. The PFMC has not yet developed an objective. Prior to Amendment 14, Klamath River spring chinook were regarded as one of several sub-basin stocks protected by the Klamath River fall chinook objective. The NOAA Fisheries chinook status review included Klamath River fall and spring chinook as part of the same ESU.

13. The PFMC manages these fisheries consistent with provisions of the Pacific Salmon Treaty. These stocks originate from either U.S. or Canadian waters and are managed as mixed stock fisheries.

14. Last year's report listed this stock as having a rebuilding plan under development, when in fact, it has been rebuilding under interim measures since 1999. A recent court ruling (National Resource Defense Council, Inc. v. Evans) determined that rebuilding plans under the Pacific Coast Groundfish Fishery Management Plan (FMP) must be in the form of FMP amendments or proposed regulations. Therefore, portions of Amendment 12 to the FMP that provided a framework for rebuilding plans were set aside. A new draft FMP amendment (Amendment 16) that includes the rebuilding plans for cowcod, darkblotched rockfish, Pacific ocean perch, and lingcod is expected to be adopted by the Pacific Fishery Management Council (PFMC) in 2003. Rebuilding plans for bocaccio, canary rockfish, widow rockfish, yelloweye rockfish, and Pacific whiting are expected to be developed in 2003. In the interim before Amendment 16 is implemented, seven of the overfished species are being managed based on a rebuilding analysis and associated rebuilding measures adopted by the PFMC.

15. The Pacific Fishery Management Council was notified on January 11, 2002 that this stock is overfished and they are required to submit a rebuilding program within one year of that date.

16. Fishery in the EEZ is closed; therefore, fishing mortality is approaching zero.

17. The full name for this FMP is the Precious Corals Fishery of the Western Pacific Region.

18. This stock is listed as unknown in this report because a post-SFA stock assessment is unavailable at this time. The most current status of stock information, contained in R. Grigg's papers, *Precious corals in Hawaii: Discovery of a New Bed and Revised Management Measures for Existing Beds* and *Harvesting impacts and invasion by an alien species decrease estimates of black coral yield off Maui,* are under review and expected to be published in *Marine Fisheries Review* and *Pacific Science*, respectively, in the near future.

19. Last year's report indicated that this stock was in year 16 of a 19-year plan, which was incorrect. This year's listing is correct.

20. This stock may be approaching an overfished condition in the Hawaiian archipelago based on the proposed overfishing guidelines of WPFMC's Amendment 6 to the Bottomfish & Seamount Groundfish FMP. This amendment is currently under review by NOAA Fisheries.

21. Upon implementation of Amendment 10 to the Western Pacific Pelagics FMP, the "pelagic sharks" stock group will be identified as 8 separate stocks, as specified in the amendment. Of those stocks, a recent assessment of blue sharks has indicated that this stock is not overfished (*Kleiber, Pierre, Yukio Takeuchi, and Hideki Nakanp. Calculation of plausible maximum sustainable yield (MSY) for blue sharks (Prionace glauca) in the North Pacific. Southwest Fisheries Science Center Administrative Report H-01-02, February 2001*).

22. The fishing mortality rate determination for this species complex (Shallow Water Flatfish complex) is "not being subjected to overfishing" based on abundance estimates of the complex; no fishing mortality rate determination can be made about the other species.

23. The fishing mortality rate determination for this species complex (Pelagic Shelf Rockfish complex) is "not being subjected to overfishing" based on Dusky Rockfish; no fishing mortality rate determination can be made about the other species.

24. The fishing mortality rate determination for this species complex (Demersal Shelf Rockfish complex) is "not being subjected to overfishing" based on Yelloweye Rockfish; no fishing mortality rate determination can be made about the other species.

25. The fishing mortality rate determination for this species complex (Thornyhead Rockfish complex) is "not being subjected to overfishing" based on Shortspine Thornyhead; no fishing mortality rate determination can be made about the other species.

26. The fishing mortality rate determination for this species complex (Flathead Sole complex) is "not being subjected to overfishing" based on Flathead Sole; no fishing mortality rate determination can be made about the other species.

27. The fishing mortality rate determination for this species complex (Arrowtooth Flounder complex) is "not being subjected to overfishing" based on Arrowtooth Flounder; no fishing mortality rate determination can be made about the other species.

28. The fishing mortality rate determination for this species complex (Sharpchin / Northern Rockfish complex) is "not being subjected to overfishing" based on Northern Rockfish; no fishing mortality rate determination can be made about the other species.

29. The fishing mortality rate determination for this species complex (Other Rockfish complex) is "not being subjected to overfishing" based on Longspine Thornyhead and Shortspine Thornyhead; no fishing mortality rate determination can be made about the other species.

30. The fishing mortality rate determination for this species complex (Other Flatfish complex) is "not being subjected to overfishing" based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.

31. The fishing mortality rate determination for this species complex (Other Species complex) is "not being subjected to overfishing" based on abundance estimates of the complex; no fishing mortality rate determination can be made about the individual species.

32. Last year this stock was listed as No under Overfishing because the fishery in the EEZ is closed and the fishing mortality rate (F) was presumed to be low; however, due to the fact that this species may be taken in conjunction with the Bering Sea Grooved Tanner Crab fishery, F is Unknown.

33. For the overfished North Atlantic blue and white marlins, Amendment One to the Atlantic Billfish FMP established a foundation to develop an international rebuilding plan. An international rebuilding plan with a two-phase approach was adopted in 2000 by ICCAT and NOAA Fisheries; Phase I has been implemented. It should be noted that the ICCAT rebuilding program does not satisfy all the requirements of the Magnuson-Stevens Act. NOAA Fisheries is continuing to work domestically to monitor its fisheries and promote conservation. The SCRS conducted an assessment of white marlin in spring 2002, which had not been formally adopted by ICCAT as of August 2002.

34. For overfished billfish, Amendment One to the Atlantic Billfish FMP established the foundation to develop an international 10-year rebuilding program. While steps have been taken internationally to pursue recovery of the overfished west Atlantic sailfish stock, an international rebuilding program has not yet been adopted. NOAA Fisheries is continuing to work through ICCAT to establish an international rebuilding program and is working domestically to monitor its fisheries and promote conservation.

35. Although a rebuilding program was developed, it could not be implemented under a court-approved settlement agreement that prevented a commercial quota reduction until a peer review was completed. The independent peer review was conducted in accordance with the court-approved settlement agreement and found that the scientific conclusions and management recommendations contained in the last stock assessment were not based on scientifically reasonable uses of the appropriate fisheries stock assessment techniques. A new assessment was conducted in the summer/fall of 2002, but was not complete, as of August 1, 2002.

Table 9. Summary of stock status for species not contained in federal fishery management plans.

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
AMERICAN EEL	ASMFC	Unknown[1]	Unknown[1]	Unknown
AMERICAN LOBSTER	ASMFC	Yes	Undefined[2]	Unknown
ATLANTIC CROAKER	ASMFC	Unknown	Unknown	Unknown
ATLANTIC MENHADEN	ASMFC	No	No	Unknown[3]
HORSESHOE CRAB	ASMFC	Unknown[1]	Unknown[1]	Unknown
NORTHERN SHRIMP	ASMFC	Yes	Undefined	Unknown
SPOT	ASMFC	Unknown[4]	Unknown[4]	Unknown
SPOTTED SEATROUT	ASMFC	Unknown[4]	Unknown[4]	Unknown
STRIPED BASS	ASMFC	No[5]	No[5]	Unknown[3]
TAUTOG	ASMFC	Yes	Undefined	Unknown
WEAKFISH	ASMFC	Undefined[6]	No	No
Atlantic Sturgeon	ASMFC	No[7]	Yes[5]	N/A
GULF MENHADEN	GSMFC	No[5]	No[5]	Unknown[3]
BLACK DRUM	GSMFC	Unknown[4]	Unknown[4]	Unknown
Queen Triggerfish	GMFMC	Unknown[1]	Unknown[1]	Unknown

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
YELLOWTAIL	PFMC	Unknown[1]	Unknown[1]	Unknown
Pacific Bonito	PFMC	Unknown[1]	Unknown[1]	Unknown
Sockeye Salmon	PFMC	Undefined[8]	Undefined[8]	Unknown
Chum Salmon	PFMC	Undefined[8]	Undefined[8]	Unknown
Pink Salmon (even-numbered years)	PFMC	Undefined[8]	Undefined[8]	Unknown
Steelhead	PFMC	Undefined[8]	Undefined[8]	Unknown
Sea-run cutthroat	PFMC	Undefined[8]	Undefined[8]	Unknown
PACIFIC HALIBUT	PFMC and NPFMC[9]	No	Undefined	Unknown
Rattails	NPFMC	Unknown[1]	Unknown[1]	Unknown
Sea Snails	NPFMC	Unknown[4]	Unknown[4]	Unknown
BONITO (ATLANTIC)	HMS	Unknown[1]	Unknown[1]	Unknown

1. There is no definition for determining the status in Our Living Oceans (1999).

2. While there is no clear biomass target in the ASMFC FMP, the 2000 ASMFC Assessment for American Lobster found that lobster stocks are growth overfished.

3. While the biomass level is known, determining whether the stock is approaching an overfished condition requires an additional level of analysis which has not been done.

4. The definition for determining the status is based on the definition in Our Living Oceans (1999).

5. Used assessment from Our Living Oceans (1999).

6. Amendment 3 to the Weakfish FMP has a current fishing mortality target of F 0.5. The ASMFC assessment for Weakfish through 2000, found that the fishing mortality rate for weakfish was between F 0.31 and F 0.45.

7. Fishing for Atlantic Sturgeon is prohibited, therefore, there is no fishing mortality.

8. This salmon stock is not contained in the Salmon FMP because impacts within the Council jurisdiction are very limited and considered inconsequential. However, it is managed in State, Tribal, and/or international treaty forums. In addition, there are no criteria specified with which to make a determination of overfished or overfishing. Determinations of those salmon stocks listed in OLO do not account for all components of the stock, some of which are listed under ESA. Therefore, it would be inaccurate to list this stock according to those determinations. In the event that actions outside of the current management regime impact this species, management objectives could be developed and incorporated by plan amendment.

9. The resource is managed by treaty between the United States and Canada through recommendations of the International Pacific Halibut Commission. Pacific halibut is managed under the jurisdiction of the PFMC for WA, OR, and CA and under the jurisdiction of the NPFMC for Alaska.

Table 10. Species contained in federal fishery management plans under development.

Stock (Species in Bold are Major Stocks)	Jurisdiction	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Approaching Overfished Condition?
WINTER SKATE	NEFMC	Unknown[1]	No	No
LITTLE SKATE	NEFMC	Unknown[1]	No	No
Barndoor Skate	NEFMC	Unknown[1]	Yes	N/A
Thorny Skate	NEFMC	Unknown[1]	Yes	N/A
Smooth Skate	NEFMC	Unknown[1]	No	Unknown[2]
Clearnose Skate	NEFMC	Unknown[1]	No	Unknown[2]
Rosette Skate	NEFMC	Unknown[1]	No	Unknown[2]
HAGFISH	NEFMC	Unknown[3]	Unknown[3]	Unknown
CALICO SCALLOPS	SAFMC	Unknown[4]	Unknown[4]	Unknown
Sargassum	SAFMC	Unknown[3]	Unknown[3]	Unknown
WAHOO	NEFMC/MAFMC/SAFMC	Unknown[3]	Unknown[3]	Unknown
BLUEFIN TUNA (NORTH PACIFIC)[5]	PFMC	Unknown[3]	Unknown[3]	Unknown
Western Pacific Currently & Potentially Harvested Coral Reef Taxa [6]	WPFMC	Unknown[3]	Unknown[3]	Unknown

1. Last year's report contained fishing mortality rate determinations (F) for skates. Since then, it has been determined that status determinations for F cannot be made; therefore, their status remains unknown.

2. While the biomass level is known, determining whether the stock is approaching an overfished condition requires an additional level of analysis which has not been done.

3. There is no definition for determining the status in Our Living Oceans (1999).

4. The definition for determining the status is based on the definition in Our Living Oceans (1999).

5. In addition to Bluefin Tuna, this FMP under development will cover West Coast based fisheries for several tuna, billfish, shark species, and dorado (dolphinfish or mahimahi) already listed in the Western Pacific Pelagics FMP (Table 3).

6. The FMP for Coral Reef Ecosystems of the Western Pacific Region, approved by the Secretary on June 14, 2002, includes federally-managed marine resources that are not listed in any of the other western Pacific fishery management plans (bottomfish/seamount groundfish, precious coral, crustacean, and pelagic fisheries). The FMP has not been implemented, however. Therefore, the western Pacific coral reef taxa is identified as a general category in this Table.

APPENDIX 1. REPORT FORMAT AND DESCRIPTION OF METHODOLOGY FOR DETERMINING OVERFISHING AND OVERFISHED STATUS

The format of this report is the same as the 2001 report. Information on necessary management actions to be taken and progress being made in rebuilding overfished stocks is provided. Determinations are presented separately for those stocks where overfishing is occurring, i.e., the fishing mortality rate is above an identified threshold; and for those stocks that are overfished, i.e., the biomass of the stock is below an identified threshold. Data concerning each of these categories are not additive and could result in double counting if added together to determine the combined status of the stocks. The categories not overfished and approaching an overfished condition are mutually exclusive. Any stock listed as approaching an overfished condition (because it is estimated that it will become overfished within 2 years) is not included in the not overfished category, even though it is currently not overfished. This is to eliminate double-counting of the stocks analyzed in this report. Overfishing and overfished definitions are listed in Appendix 2.

Determining Status of Stocks

If the fishing mortality rate is above the threshold, then overfishing is occurring. If the stock size is below the minimum threshold, then the stock is overfished. The overfishing and overfished categories are separate determinations and should not be added together, because this would result in double-counting for many of the stocks.

In addition, if a stock size is expected to fall below the minimum stock size threshold within 2 years, then it is listed as approaching an overfished condition. Determinations are based on the criterion in the FMP or other official document for the overfished (biomass) component and trends in various indicators relative to that criterion. For some stocks, pre-SFA definitions, including proxy MSYs and minimum stock size threshold, were used as a basis in determining whether a stock was approaching an overfished condition.

For salmon stocks contained in the Pacific Coast Salmon Plan (Salmon FMP), determining whether a stock is approaching a condition of being overfished is based on a different, albeit analogous, set of criteria. A conservation alert is triggered during the annual preseason process if a natural stock or stock complex is projected to fall short of its conservation objective (MSY, MSY proxy, MSP_2, or floor, in the case of some harvest rate objectives) for one year. The criteria used by the PFMC is more conservative than recommended under the National Standard Guidelines, and a one-year departure from the MSY/MSP_2 spawner objectives does not necessarily mean that the stock will be unable to produce MSY in the long-term.

Stock assessments may be based on fully approved overfishing definitions that specify both a maximum fishing mortality rate threshold and a minimum stock size threshold, or assessments may be based on partially approved or fully disapproved definitions. If a partially approved definition exists in the FMP, the determinations were made using the approved portion of the definition and the pre-SFA definition in the FMP for the disapproved portion of the definition, if available. Many of these pre-SFA definitions have been contained in their respective FMPs for years, were approved prior to the SFA amendments, and remain the operative definition, if the proposed SFA definition was disapproved. In some cases, a pre-SFA definition is not available to base a determination on, causing undefined to be noted in the appropriate column. For fully disapproved definitions, this year's report again uses the pre-SFA definition. If neither post- nor pre-SFA overfishing and overfished definitions are contained in the FMP, the stock will be listed as *undefined* in both of these categories.

Pre-SFA and Post-SFA Definitions

This report divides the overfishing and overfished columns into pre- and post-SFA overfishing definitions to make the basis for the determinations as clear as possible. The approaching an overfished condition column does not make a distinction between pre- and post-SFA. Since a stock is considered to be approaching an overfished condition if it is likely to become overfished in two years, it is generally based on stock level indicators and trends in fishing effort. The type of overfishing definition (pre- or post-SFA) used to determine if a stock is approaching an overfished condition is based on the criteria associated with the biomass (overfished) component of the definition and trends in fishing effort.

Final Conclusions

Because the overfishing definitions used to assess stocks contained in this report have changed over the years, it is difficult to make year-to-year comparisons of stocks. Removal of the third column (overfished) that was used in reports prior to 2000 also makes direct comparisons difficult. Nevertheless, the determinations in the fishing mortality rate column in previous year's reports can be compared with the determinations in the overfishing column this year. Likewise, the determinations in previous year's biomass column can be compared to the overfished column in this year's report.

Rebuilding Progress

Information is provided about those stocks for which rebuilding programs are required. By identifying the type of management action required when overfishing is occurring or when a stock is overfished, it is possible to correctly note which stocks require reduction of the fishing mortality rate and which stocks actually require rebuilding plans. The progress of each rebuilding plan is indicated in the last column of the table, giving information about the number of years the program has been in place, and the total number of years the program is expected to exist. Some plans were approved prior to the SFA amendments and are footnoted accordingly, and those for which there is no defined time line are also noted. For purposes of this report, December 2002 is used as the cutoff date for determining the year in which the rebuilding plan is currently in.

Any stock that has previously been listed, or is currently listed, as overfished is required to have a rebuilding program until the stock has been rebuilt to levels that are consistent with supporting MSY on a sustainable basis. Stocks that are overfished that do not have a rebuilding program are listed as *rebuilding program* in the Management Action Required column, which indicates that a rebuilding program is required for this stock. Overfished stocks that are listed as *continue rebuilding* in the Management Action Required column are currently rebuilding under an approved rebuilding program. Stocks that are listed as *not overfished - rebuilding* were previously below the minimum stock size threshold, are now above that level, but have not been rebuilt to the target levels specified in their rebuilding plans. These stocks are currently rebuilding under an approved rebuilding plan, and are listed as *continue rebuilding* in the Management Action Required column. It is important to note that the status of rebuilding stocks should not be considered as healthy until they have been fully rebuilt. Stocks that are listed as *to be developed* are stocks that have recently been declared overfished. These stocks are footnoted to indicate when the Council was notified of their overfished status, and the Council has one year from that date to submit a rebuilding plan.

METHODOLOGY FOR STATUS DETERMINATIONS

Basis for Determining Status of Overfishing

As required by section 304(e)(1) of the Magnuson-Stevens Act, the status determination for those stocks managed under a FMP or international agreement was based on the criteria (i.e., the overfishing definition) specified in the FMP or agreement, whenever possible (see Appendices 2-5). Prior to requirements under the

SFA, most existing overfishing definitions were based wholly or in part on either a fishing mortality rate or stock biomass, but not both. The SFA requires that status determination criteria must specify both a maximum fishing mortality threshold or reasonable proxy thereof, and a minimum stock size threshold or reasonable proxy thereof. Thus, stocks must be assessed according to whether the maximum fishing mortality threshold is being exceeded and whether the stock is below the minimum stock size threshold. Overfishing is determined to be occurring for those stocks for which the fishing mortality rate exceeds the fishing mortality rate or level required to produce the maximum sustainable yield (MSY) on a continuing basis. Overfished stocks are those whose biomass is below the minimum stock size required to produce MSY on a continuing basis.

In conformance with SFA requirements, this report identifies the status determination of stocks based on both the fishing mortality rate and stock biomass, wherever possible. The National Standard Guidelines require NOAA Fisheries to determine whether the fishing mortality rate threshold is being exceeded or the biomass is below the established threshold for each stock. If either overfishing is occurring or a stock is being overfished, management action is required. For stocks in which overfishing is occurring, fishing mortality must be reduced so that stocks can produce MSY on a continuing basis; for stocks that are overfished, rebuilding plans must be implemented so that stocks can be rebuilt to the level necessary to produce MSY on a continuing basis. The following is a description of the basis for status determinations under a variety of scenarios associated with fully approved, partially approved, or fully disapproved definitions.

Fully Approved Definitions under the SFA: For those stocks contained in FMPs for which overfishing definitions were fully approved, status determinations were based on assessments using both the fishing mortality rate and biomass definitions, wherever possible. If the fishing mortality rate exceeded the established fishing mortality rate threshold, the stock was listed as *overfishing* occurring. If the biomass was below the established biomass threshold, the stock was listed as *overfished*. Stocks listed as *unknown* are those for which there is an approved overfishing definition, but for which no determination can be made because of insufficient information.

Partially Approved Definitions under the SFA: For those stocks contained in FMPs for which overfishing definitions were partially approved (i.e., for which only one of the two necessary criteria was approved), status determinations were based on the definitions that are currently in the FMP. For some stocks, determinations were made using a combination of the SFA approved definition, such as the fishing mortality rate, and the pre-SFA definition, such as stock level size. For other stocks, the only overfishing definition contained in the FMP is one component (fishing mortality or biomass) that meets SFA requirements. For these stocks, determinations were made using the SFA approved criterion, and the other component was listed as *undefined*. Stocks listed as undefined are those for which there is no status criterion by which to make a determination.

Definitions under the SFA That Are Fully Disapproved or Still under Review: For those stocks contained in FMPs for which the overfishing definitions were fully disapproved or are still under review, status determinations were based on previously existing definitions, and were assessed under pre-SFA guidelines. Similar to partially approved definitions, the overfishing or overfished determination was based solely on the status criterion that is available. When a status criterion is not available the stock is listed as *undefined*.

Stocks Contained in Federal FMPs for Which Definitions Do Not Apply: Some stocks contained in federal FMPs have never had an overfishing or overfished definition. Such stocks are usually minor and are contained in federal FMPs in which overfishing definitions exist, but the definitions do not apply to these stocks. The status of such stocks are listed as *undefined*.

Fully or Partially Approved Definitions Contained in Non-federal FMPs Managed by Interstate Fishery Management Commissions: While there are no SFA requirements for stocks contained in non-federal FMPs

to have both a fishing mortality rate and biomass definition, some may contain one or both of these components. For stocks in which both components were approved, the status determination is based on these definitions. For stocks in which there is only one component to make a determination (either overfishing or overfished criteria), the status determination is based on the approved criteria, and the other component is listed as *undefined*. Pacific halibut, which is managed through an international treaty between the United States and Canada is listed according to these same guidelines. Management measures are coordinated jointly by the PFMC and NPFMC in U.S. waters, and it is likely that this regime will continue.

Stocks Not Contained in Federal FMPs, Stocks Contained in Federal FMPs under Development, and Stocks Contained in Non-federal FMPs Managed by Interstate Fishery Management Commissions for Which There Are No Definitions: For these cases, if overfishing definitions are available for either component, they will be used to make the status determinations. If definitions are not available the stock will be listed according to the status determination in OLO. If there is no basis for making a determination listed in OLO, the stock is listed as *unknown*. One notable exception is five salmon stocks under the management jurisdiction of the PFMC, which are not contained in a federal FMP. They are not listed according to OLO because it would be inaccurate to do so, due to the fact that some stocks are listed under the Endangered Species Act (ESA), while OLO lists the status of some of these stocks as no overfishing occurring and not overfished. Therefore, they have been listed as *undefined* because no definition of overfishing and overfished exists for them.

The 1999 edition of OLO was used to determine the status relative to overfishing for stocks (1) for which there are no FMPs or international agreements and there are no overfishing definitions, but that are under the Councils' geographic area of authority (see exception noted above) or under the Secretary's management authority for Atlantic highly migratory species; (2) that are contained in FMPs under development and do not have overfishing definitions; and (3) that are contained in non-federal FMPs managed by an Interstate Fishery Management Commission and there are no overfishing definitions. In OLO, the terms overfished and overfishing are not used, but similar concepts are. Long Term Potential Yield (LTPY), as used in OLO, is analogous to MSY. Thus, the conclusions reached in OLO approximate the conclusions that would be drawn if an assessment had been made using the SFA's definition of *overfished*. Stocks that are listed in OLO as below stock levels necessary to produce LTPY are considered *overfished*, and those listed as "near" and "above" stock levels necessary to produce LTPY are considered *not overfished*. In determining whether overfishing is occurring, the existing fishing effort or fishery utilization level was compared to the level necessary to achieve LTPY. Stocks that are listed in OLO as "over" are stocks for which *overfishing* is occurring, and those that are listed as "under" or "fully" are stocks for which *no overfishing* is occurring. Because OLO does not make a determination of whether the stock is approaching an overfished condition, that determination could not be made for those stocks assessed using OLO. For stocks not contained in FMPs that have no overfishing definition or for which there is no determination of stock status in OLO, the overfished status is listed as *unknown*.

Many of the stocks listed as overfished in this report have experienced excessive levels of fishing effort in recent years, and appropriate measures have been taken to reduce fishing mortality on these stocks. Other stocks listed as *overfished* may be due to prevailing environmental conditions, habitat degradation, or natural fluctuations in the stocks. These factors may have reduced the stock biomass to levels below that which is necessary to produce MSY on a continuing basis. Sometimes, management measures have little impact on the status of the stocks. For example, many of the Pacific salmon stocks under the PFMC jurisdiction are not significantly impacted in fisheries within the Council's jurisdiction. Other stocks are listed as threatened or endangered under the ESA and management for these stocks is conducted under the ESA. Fishing effort has been appropriately reduced or eliminated, but the stocks remain overfished due to factors beyond the Council's control. While the Councils, NOAA Fisheries, and any management regime will make every effort to implement appropriate management measures, rebuilding programs may not necessarily restore some stocks to a healthy level, until these other factors are effectively dealt with.

Information regarding the status of stocks is continually evolving and additional information has become available for some stocks since the most recent publication of OLO. For those stocks for which there is updated information in a citable form, that information was used to determine the status of that stock in this report. It is recognized that this approach does not include all "preliminary" information for each stock. However, this approach has been taken to minimize potential confusion as conclusions about stock conditions change with changes in "preliminary" information.

APPENDIX 2. OVERFISHING DEFINITIONS CONTAINED IN FEDERAL FISHERY MANAGEMENT PLANS

The following definitions are as contained in the Fishery Management Plans, with minor editing changes to maintain consistency of terms. See **Appendix 6** for definitions of acronyms used in this appendix.

Atlantic Sea Scallop – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Georges Bank - Overfishing occurs when F exceeds F_{max} (proxy for F_{msy}), when the stock biomass is equal to or greater than B_{max} (proxy for B_{msy}) or when F is greater than zero if the stock is below $¼B_{max}$. The best available estimate of F_{max} is 0.24.

A stock is overfished when stock biomass is below $¼B_{max}$. B_{max} is defined as 8.16 kg/tow (SAW-32, 2001).

Middle Atlantic - Overfishing occurs when F exceeds F_{max} (proxy for F_{msy}), when the stock biomass is equal to or greater than B_{max} (proxy for B_{msy}) or when F is greater than zero if the stock is below $¼B_{max}$. The best available estimate of F_{max} is 0.24.

A stock is overfished when the stock biomass is below $¼B_{max}$. B_{max} is defined as 3.90 kg/tow (SAW-32, 2001).

Atlantic Salmon - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing is currently not defined (fishing mortality is set equal to zero).

A stock is overfished when the stock biomass falls below B_{MSY} (54,000 spawning salmon is set as a proxy for $B_{MSY)}$. The estimate of B_{MSY} has not been revised since the 2000 report.

Northeast Multispecies

*For the Northeast multispecies fishery, the values for the most recent fishing mortality rates and biomass levels that were used to determine the status of the stocks in the Northeast Multispecies Fishery Management Plan (with the exception of silver hake, red hake, and offshore hake) are those indicated in the document titled "Re-Evaluation of Biological Reference Points for New England Groundfish" (Northeast Fisheries Science Center Reference Document 02-04). The Northeast multispecies fishery is currently managed consistent with a Federal Court order, and a Settlement Agreement among various parties. In light of these circumstances, the biomass and fishing mortality thresholds utilized for determinations in this report were those contained in the above document, and not the approved Amendment 9 parameters. Unless otherwise noted, biomass thresholds were 50% Bmsy and fishing mortality thresholds were Fmsy (or proxies).

***Cod** - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

***(Gulf of Maine)** - Overfishing occurs when F exceeds F_{msy}. The best available estimate of F_{msy} is 0.23.

A stock is overfished when the total stock biomass is less than ¼B_{msy}. The best available estimate of B_{msy} is 90,300 mt (SAW-33, 2001).

***(Georges Bank)** - Overfishing occurs when F exceeds F_{msy}. The best available estimate of F_{msy} is 0.32.

A stock is overfished when the total stock biomass is less than ¼B_{msy}. The best available estimate of B_{msy} is 108,000 mt.

***Haddock** – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

***(Gulf of Maine)** - Overfishing occurs when the relative exploitation index (catch/autumn biomass index) exceeds 0.29 (F_{msy} proxy).

A stock is overfished when the total stock biomass is less than the survey proxy for ½B_{msy} (4.13 kg/tow).

***(Georges Bank)**- Overfishing occurs when F exceeds $F_{0.1}$ (0.26).

A stock is overfished when the spawning stock biomass is less than ½B_{target} (53,000).

***American Plaice** – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{0.1}$. The best available (current) estimate of $F_{0.1}$ is 0.19.

A stock is overfished when the spawning stock biomass is less than ¼B_{msy} at $F_{0.1}$. The best available estimate of $B_{threshold}$ is 6,050 mt.

***Redfish** - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{20\%}$. The best available estimate of $F_{20\%}$ is 0.12.

A stock is overfished when the spawning stock biomass is less than ½B_{msy}. B_{msy} cannot be estimated, however a ratio of current biomass to B_{msy} was used to determine the stock status relative to the overfishing definition (SAW-33, 2001).

***Witch Flounder** – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy}. The best available (current) estimate of F_{msy} (biomass weighted) is 0.106.

A stock is overfished when the total stock biomass is less than 42%B_{msy}. B_{msy} is estimated at 25,000 mt (SAW-29, 1999).

***Yellowtail Flounder** – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

***(Georges Bank)** – Overfishing occurs when F exceeds F_{msy}. The best available (current) estimate of F_{msy} is 0.33 (biomass weighted, ages 1+).

A stock is overfished when the total stock biomass is less than $¼B_{msy}$. The best available (current) estimate of $¼B_{msy}$ is (10,870 mt). (TRAC, 2001).

***(Southern New England)** - Overfishing occurs when F exceeds F_{msy} (0.23).

A stock is overfished when the total stock biomass is less than $¼B_{msy}$ (12,800 mt).

***(Cape Cod)** – Overfishing occurs when F exceeds F_{msy}. The best available estimate of F_{msy} is 0.40 (biomass weighted); and 0.54 (fully recruited).

A stock is overfished when the total stock biomass is less than $½B_{msy}$. The best available estimate of B_{msy} is 6,100 mt. (SAW-28,1999).

***(Middle Atlantic)** - Overfishing occurs when F exceeds F_{msy}, which is defined as MSY/B_{target}. The best available estimate of F_{msy} proxy is 0.36.

A stock is overfished when the total stock biomass is less than the survey proxy for $½B_{msy}$. The best available estimate of B_{msy} proxy is 4.58 kg/tow.

***White Hake** – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy}. The best available estimate of F_{msy} is 0.29.

A stock is overfished when the total stock biomass is less than $¼B_{msy}$. The best available estimate of B_{msy} is 14,700 mt (SAW-33, 2001).

***Pollock** – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{20\%}$. The best available estimate of $F_{20\%}$ (F_{msy} proxy) is 0.65.

A stock is overfished when the spawning stock biomass is less than $¼B_{msy}$. The best available estimate of B_{msy} is 26,000 mt.

***Ocean Pout** – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{msy} proxy. The best available estimate of the F_{msy} proxy is 0.31 catch/survey index.

A stock is overfished when the total stock biomass is less than ½B_{msy} proxy. The best available estimate of the B_{msy} proxy is 2.4 kg/tow.

***Atlantic Halibut** - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds $F_{0.1}$. Maximum rebuilding time is undefined for this stock. No fishing mortality is permitted (F = 0) until the stock is rebuilt (provisional control law). The best available estimate of $F_{0.1}$ is 0.06.

A stock is overfished when the total stock biomass is less than the biomass threshold of ½B_{MSY}. The best available estimate of B_{MSY} is 5,400 mt.

***Windowpane Flounder** – The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

***(Gulf of Maine/Georges Bank)** - Overfishing occurs when F exceeds F_{msy} proxy of a relative exploitation index. The best available estimate of the F_{msy} proxy is 1.11 catch/survey index.

A stock is overfished when the total stock biomass is less than ½B_{msy}. The best available estimate of the B_{msy} proxy is 0.47 kg/tow.

***(Southern New England/Middle Atlantic)** – Overfishing occurs when F exceeds F_{msy} proxy of a relative exploitation index. The best available estimate of the F_{msy} proxy is 2.24 catch/survey index.

A stock is overfished when the total stock biomass is less than ¼B_{msy} The best available estimate of the B_{msy} proxy is 0.10 kg/tow.

***Winter Flounder (Gulf of Maine)** - The overfishing definition was disapproved under SFA guidelines. The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing morality rate (F) component.

Overfishing occurs when the fishing mortality rate exceeds the rate associated with 20% MSP_1 by NEFMC and 40% by ASMFC.

***Winter Flounder** - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

***(Georges Bank)** - Overfishing occurs when F exceeds F_{MSY}. Best available estimates of F_{MSY} proxy is 1.12.

A stock is overfished when the total stock biomass is less than ½$B_{MSY.}$ Best available estimates of B_{MSY} proxy is 2.730 (SAW-28, 1999).

***(Southern New England)** - Overfishing occurs when F exceeds F_{MSY}. Best available estimates of F_{MSY} is 0.37 (biomass weighted).

A stock is overfished when the total stock biomass is less than ¼B_{MSY}. Best available estimates of B_{MSY} is

27,800 mt.

Silver Hake - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

(Gulf of Maine/Northern Georges Bank, Southern Georges Bank/Middle Atlantic) - Overfishing occurs when F exceeds F_{MSY}, the proxy for which is $F_{0.1}$. The best available estimates of $F_{0.1}$ are 0.41 for Gulf of Maine / Northern Georges Bank Silver Hake, and 0.39 for Southern Georges Bank / Middle Atlantic Silver Hake.

B_{MSY} proxies are estimated at 3.31 (Northern), and 0.89 (Southern) (SAW-32, 2000).

Offshore Hake - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessment contained in this report. The definition contains only a biomass (B) component.

Offshore hake is in an overfished condition when the 3-year moving average weight per individual in the autumn survey falls below the 25th percentile of the average weight per individual from the autumn survey time series 1963-1997 (0.236) *and* when the 3-year moving average of the abundance of immature fish less than 30 cm falls below the median value of the 1963-1997 autumn survey abundance of fish less than 30 cm (0.33).

[Note: The above overfishing definition is the approved definition from Amendment 12 to the NE Multispecies FMP; however, there is an error in this definition which needs to be corrected by the New England Fishery Management Council in the next FMP amendment. The overfishing definition in the FMP should read that "overfishing is occurring when . . ." not that offshore hake is overfished. Thus, the approved overfishing definition contains a biomass (B) component but not a fishing mortality rate (F) component. In this case, overfishing, per se, is undefined. In practice, the correct overfishing definition should contain a fishing mortality rate component, leaving the biomass component undefined.]

Red Hake (Gulf of Maine/Northern Georges Bank) - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds F_{MSY}. The best available estimate of F_{MSY} is 0.65.

A stock is overfished when the biomass is less than $\frac{1}{2}B_{MSY}$ proxy. The best available estimate of B_{MSY} proxy is 1.6 kg/tow.

Red Hake (Southern Georges Bank/Middle Atlantic) - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessment contained in this report. The definition contains only a biomass (B) component.

The southern stock of red hake is in an overfished condition when the 3-year moving average weight per individual in the autumn survey falls below the 25th percentile of the average weight per individual from the autumn survey time series 1963-1997 (0.12) *and* when the 3-year moving average of the abundance of immature fish less than 25 cm falls below the median value of the 1963-1997 autumn survey abundance of fish less than 25 cm (4.72).

[Note: The above overfishing definition is the approved definition from Amendment 12 to the NE

Multispecies FMP; however, there is an error in this definition which needs to be corrected by the New England Fishery Management Council in the next FMP amendment. The overfishing definition in the FMP should read that "overfishing is occurring when . . ." not that the southern stock of red hake is overfished. Thus, the approved overfishing definition contains a biomass (B) component but not a fishing mortality rate (F) component. In this case, overfishing, per se, is undefined. In practice, the correct overfishing definition should contain a fishing mortality rate component, leaving the biomass component undefined.]

Atlantic Herring - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

If the stock biomass is equal to or greater than B_{msy}, overfishing occurs when the fishing mortality rate exceeds $F_{msy.}$ If the stock biomass is less than B_{msy}, overfishing occurs when the fishing mortality rate exceeds the level that has a 50-percent probability of rebuilding the stock biomass to B_{msy} in 5 years ($F_{threshold}$). The best available estimate of F_{msy} is 0.30.

The stock is overfished when stock biomass is less than ½ Bmsy. The best estimate of B_{msy} is 1.07 million mt.

Deep-Sea Red Crab - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing is defined as any rate of exploitation such that the ratio of current exploitation to an idealized exploitation under MSY conditions exceeds a value of 1.0 (the actual measure of exploitation used is determined by the availability of suitable data).

The stock is overfished when one of the following three conditions is met:

> Condition 1 – The current biomass is below ½ B_{msy} in the management unit.
> Condition 2 – The annual fleet average CPUE, measured as marketable crabs landed per trap haul, continues to decline below a baseline level for 3 or more years. The baseline level = ½ CPUE under virgin stock conditions (not currently specified).
> Condition 3 – The annual fleet average CPUE, measured as marketable crabs landed per trap haul, declines below a minimum threshold level in any single year. The minimum threshold level = ¼ CPUE under virgin stock conditions (not currently specified).

Monkfish - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Northern stock – Overfishing occurs when F exceeds $F_{threshold}$, which is the average F during 1970-1979. Current estimates place the value at F=0.2.

A stock is overfished when the survey index is less than $B_{threshold}$, which is the 33rd percentile of the 1963-1994 NEFSC autumn trawl survey catch. Current estimates are 1.46 kg/tow.

Southern stock - Overfishing occurs when F exceeds $F_{threshold}$, which is the average F during 1970-1979 (0.2).

A stock is overfished when the survey index is less than $B_{threshold}$, which is the 33rd percentile of the 1963-1994 NEFSC autumn trawl survey catch. Best available estimate of $B_{threshold}$ is 0.75 kg/tow (SAW-34, 2002).

Spiny Dogfish -The following overfishing was partially approved under SFA guidelines and was used to make assessments in this report. The approved portion of the definition contains a fishing mortality rate (F) component. The biomass (B) target proposed in the FMP was disapproved because it was specified at 90 percent of SSB_{max}, rather than SSB_{max}.

Overfishing occurs when F exceeds $F_{threshold}$, the mortality rate that stabilizes the population at SSB_{max} when recruitment is at 27.5 inches (70cm). The current estimate of $F_{threshold}$ is 0.11.

A stock is overfished when the biomass is less than $\frac{1}{2}SSB_{max.}$ The current estimate of $B_{threshold}$ is 100,000 mt female biomass.

Summer Flounder, Scup, and Black Sea Bass

Summer Flounder - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold of F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.26.

A stock is overfished when total biomass falls below the minimum biomass threshold of $\frac{1}{2}B_{msy}$. The best available estimate of B_{msy} is 106,000 mt (SAW-31, 2000).

Scup - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.26.

A stock is overfished when the minimum biomass index for rebuilding is less than $B_{threshold}$, which is the maximum value of a 3-year moving average of the Northeast Fisheries Science Center's spring survey catch per tow of spawning stock biomass (SSB). The best available estimate of $B_{threshold}$ is 2.77 kg/tow, the average of 1977-1979.

Black Sea Bass - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{max} (F_{max} is used as a proxy for F_{msy}). The best available estimate of F_{max} is 0.32.

A stock is overfished when the minimum biomass index for rebuilding is less than $B_{threshold}$, which is the maximum value of a 3-year moving average of the Northeast Fisheries Science Center's spring survey exploitable biomass index (fish >22 cm). The best available estimate of $B_{threshold}$ is 0.9 kg/tow.

Bluefish (except Gulf of Mexico) - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the threshold F_{MSY}. The best available estimate of F_{MSY} is 0.4.

A stock is overfished when the minimum biomass is less than $½B_{MSY}$. The best available estimate of B_{MSY} is 107,600 mt.

Surfclams and Ocean Quahogs

Surfclam - The overfishing definition was disapproved under SFA guidelines. The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing morality rate (F) component.

The overfishing definition for surfclams is the fishing mortality rate of $F_{20\%}$ (20% of MSP_1). The best available estimate of $F_{20\%}$ is 0.18 (SAW-30, 2000).

Ocean Quahog – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the overfishing target is exceeded, which is $F_{target} = F_{0.1}$ for the exploited region and ½ the virgin biomass. The best available estimate of $F_{0.1}$ is 0.22.

A stock is overfished when the minimum biomass is less than the biomass threshold of $½B_{msy}$ or ¼ of the virgin biomass. The best available estimate of B_{msy} is 1 million mt (SAW-31, 2000).

Atlantic Mackerel, Squid, and Butterfish

***Illex* Squid** - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{msy}. The best available estimate of F_{msy} is 1.22.

A stock is overfished when the minimum biomass is less than $½B_{msy}$. The best available estimate of B_{msy} is 39,300 mt.

***Loligo* Squid** - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{max} (F_{max} is a proxy for F_{msy}). Current estimates for F_{max} = 0.7 and 1.2 for winter and summer cohorts, respectively.

A stock is overfished when the minimum biomass is less than the biomass threshold of ½B_{msy}. The best available estimate of B_{msy} is 80,000 mt (SAW-19, 1999).

Atlantic Mackerel – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when F exceeds the fishing mortality threshold of F_{msy} (0.45). To avoid low levels of recruitment, the threshold F decreases linearly from 0.45 at 890,000 mt SSB to zero at 225,000 mt SSB (¼B_{msy}).

A stock is overfished when the SSB is less than 890,000 mt. The estimates of the component parts of this overfishing definition were not re-estimated from past levels and therefore remain the best available estimates (SAW-30, 2000).

Butterfish (Atlantic) – The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the catch associated with a threshold F of F_{msy} is exceeded. F_{msy} is currently estimated at 1.01, and has not been re-estimated since the 2000 report.

A stock is overfished when the minimum biomass is less than the biomass threshold of ½B_{msy}. Estimates of B_{msy} are unknown.

Golden Tilefish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing occurs when the catch associated with a threshold F of F_{msy} is exceeded. The current estimate of F_{msy} is 0.22.

A stock is overfished when the total stock biomass falls below the minimum biomass threshold ($B_{threshold}$) of ½B_{msy}. The current estimate of $B_{threshold}$ is 4,200 mt.

Golden Crab of the South Atlantic - The following overfishing definition was partially approved under SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and biomass (B) component; however, the estimate of MSY was rejected.

Overfishing occurs when the fishing mortality rate (F) associated with the fishing mortality rate that produces maximum sustainable yield (F_{MSY}) is exceeded.

A stock is overfished when the current biomass ($B_{current}$) is less than MSST. The MSST is defined as a ratio of current biomass ($B_{current}$) to biomass at MSY or (1-M)* B_{MSY}, where 1-M should never be less than 0.5.

Shrimp Fishery of the South Atlantic - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a

fishing morality rate (F) and biomass (B) component.

White Shrimp – The South Atlantic white shrimp resource is overfished and overfishing occurs when the overwintering white shrimp population within a state's water declines by 80% or more following severe winter weather resulting in prolonged cold water temperatures.

Rock Shrimp – The South Atlantic rock shrimp resource is overfished and overfishing occurs when the annual landings exceed the value which is two standard deviations above mean landings for the period 1986-1994.

Brown Shrimp and **Pink Shrimp** – The South Atlantic brown and pink resources are overfished and overfishing occurs when annual landings fall below two standard deviations below mean landings for the period 1957-1993 for 3 consecutive years.

South Atlantic Snapper-Grouper - For the following overfishing definitions, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessments contained in this report. The biomass (B) component was approved under SFA guidelines for **Black Sea Bass** and **Red Porgy**. For all other stocks, Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Goliath Grouper (Jewfish), Nassau Grouper - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 40% Static SPR.

Overfished is defined as SPR less than 40%. Based on qualitative information, it is believed that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Vermilion Snapper, Gag, Red Snapper, Speckled Hind, Snowy Grouper, Warsaw Grouper, Golden Tilefish, Yellowtail Snapper, Red Grouper, Black Grouper, Mutton Snapper, Greater Amberjack, Wreckfish, Yellowedge Grouper, Scamp, White Grunt, Gray (Mangrove) Snapper, Lane Snapper, Gray Triggerfish, Queen Triggerfish, Ocean Triggerfish, Yellow Jack, Blue Runner, Crevalle Jack, Bar Jack, Lesser Amberjack, Almaco Jack, Banded Rudderfish, Spadefish, Black Margate, Porkfish, Margate, Tomtate, Smallmouth Grunt, French Grunt, Spanish Grunt, Cottonwick, Sailors Choice, Blue Stripe Grunt, Hogfish, Puddingwife, Black Snapper, Queen Snapper, Schoolmaster, Blackfin Snapper, Cubera Snapper, Mahogany Snapper, Dog Snapper, Silk Snapper, Blueline Tilefish, Sand Tilefish, Bank Sea Bass, Rock Sea Bass, Rock Hind, Graysby, Coney, Red Hind, Misty Grouper, Yellowmouth Grouper, Tiger Grouper, Yellowfin Grouper, Sheepshead, Grass Porgy, Jolthead Porgy, Saucereye Porgy, Whitebone Porgy, Knobbed Porgy, Longspine Porgy, Scup - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR.

Except for black sea bass and red porgy, overfished is defined as SPR less than 30% based on pre-SFA criteria.

Red Porgy - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 35% Static SPR (F=0.43).

Overfished is defined as a stock size less than the minimum stock size threshold (7.34 million pounds).

Black Sea Bass - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR (0.72).

Overfished is defined as a stock size less than the minimum stock size threshold (3.72 million pounds).

Atlantic Coast Red Drum - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 30% Static SPR.

Overfished is defined as SPR less than 30%.

Coral, Coral Reefs, and Live / Hard Bottom Habitats of the South Atlantic Region - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Fire Corals, Hydrocorals, Octocorals, Stony Corals, Black Corals - Overfishing is defined as an annual level of harvest that exceeds optimum yield (OY). OY for coral reefs, stony corals, hydrocorals, black corals, seafans, and live rock is zero, except as may be authorized for scientific and educational purposes. Harvest of allowable octocorals in the EEZ is specified by the South Atlantic Council each year.

Overfished is not defined.

Coastal Migratory Pelagics of the South Atlantic and Gulf of Mexico - The overfishing definitions for the following South Atlantic stocks have been fully approved under SFA guidelines, and were used to make the assessments contained in this report. The definitions contain both a fishing mortality rate (F) and biomass (B) component.

Atlantic group King Mackerel and Atlantic group Spanish Mackerel - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the stock size is less than the minimum stock size threshold (MSST).

For the following stocks, the fishing mortality rate (F) component of the overfishing definition has been approved under SFA guidelines, and was used to make the assessments contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Gulf group King Mackerel, Gulf group Spanish Mackerel, and Dolphin - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Cobia, Cero, Little Tunny, Bluefish (Gulf of Mexico only) - Overfishing occurs when the fishing mortality rate (F) is in excess of the F corresponding to a 30% Static SPR.

A stock is overfished when the transitional SPR is less than 30%.

Spiny Lobster Fishery of the South Atlantic and Gulf of Mexico - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Spiny Lobster - Overfishing is defined as a fishing mortality rate (F) in excess of the fishing mortality rate corresponding to a 20% SPR.

The stock is overfished when the SPR is less than 20%.

Slipper Lobster - No overfishing definition exists in the FMP.

Stone Crab Fishery of the Gulf of Mexico - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. The pre-SFA definition was used to make the assessment of overfished status.

Overfishing occurs and a stock is overfished when the realized egg production per recruit is reduced below 70% of potential production. This will be avoided when there is a minimum claw length (length of prodopus) that assures survival of the crabs to achieve 70% egg production per recruit potential.

Shrimp Fishery of the Gulf of Mexico - For the following overfishing definitions, the biomass (B) component has been approved for **Brown Shrimp**, **Pink Shrimp**, and **White Shrimp** under SFA guidelines, and was used to make the assessments contained in this report. For **Royal Red Shrimp**, there is no biomass component of the overfishing definition to make an assessment. For the fishing mortality rate (F) component, the pre-SFA definitions were used to make the assessments for all of the shrimp.

Brown Shrimp - Overfishing is occurring and the stock is overfished when the parent stock levels are reduced below 125 million shrimp (MSST). This value is slightly lower than the 1983 level of parent stock, which is the lowest observed value since 1960. Parent stock is defined for brown shrimp as the number of age 7+ (months) shrimp during the November through February period.

Pink Shrimp - Overfishing is occurring and the stock is overfished when parent stock levels are reduced below 100 million shrimp (MSST). Parent stock is defined for pink shrimp as the number of 5+ (months) shrimp during the July through June period. Pink shrimp in the western U.S. Gulf were not included in this definition because mixed catches of brown and pink shrimp are not separated and are landed, sold, and statistically treated as brown shrimp.

White Shrimp - Overfishing is occurring and the stock is overfished when parent stock levels are reduced below 330 million shrimp (MSST). Parent stock is defined for white shrimp as the number of age 7+ (months) shrimp during the May through August period.

Royal Red Shrimp - Overfishing is occurring and the stock is overfished when landings exceed optimum yield (OY). OY is set at MSY (maximum sustainable yield), which was estimated to be 392,000 pounds of tails over 1,290 days fished. Royal red shrimp differ from penaeid shrimp in that they are not estuarine dependent but exist in a relatively constant environment in the deeper waters of the Gulf of Mexico (100 to 300 fathoms). Thus, they conform more closely to a classical Schaefer-type fishery.

Overfished is undefined.

Rock Shrimp and Seabob Shrimp - No overfishing or overfished definitions exist in the FMP.

Coral and Coral Reefs of the Gulf of Mexico - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Fire Corals, Hydrocorals, Octocorals, Stony Corals, Black Corals - Overfishing is defined as an annual level of harvest that exceeds optimum yield (OY). OY for coral reefs, stony corals, hydrocorals, black corals, seafans, and live rock is zero, except as may be authorized for scientific and educational purposes. Harvest of allowable octocorals in the EEZ is not to exceed 50,000 colonies per year (Gulf and South Atlantic EEZ combined).

Overfished is undefined.

Reef Fish of the Gulf of Mexico - For all of the following stocks except **Red Snapper**, the fishing mortality rate (F) component of the overfishing definition has been approved under SFA guidelines, and was used to make the assessments contained in this report. For the fishing mortality rate (F) component for **Red Snapper**, the pre-SFA definition was used to make the assessments. For all stocks, Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

Red Snapper - Overfishing occurs when the fishing mortality rates exceeds that associated with a 20% static SPR.

The stock is overfished when the transitional SPR is less than 20%.

Red Grouper - The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

The stock is overfished when the transitional SPR is less than 30%.

Nassau Grouper, Goliath Grouper (Jewfish) - The maximum fishing mortality threshold is the rate corresponding to a 40% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 40% static SPR.

A stock is overfished when the transitional SPR is less than 20%. Qualitative information suggests that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Greater Amberjack, Gag, Vermilion Snapper, Gray Triggerfish, Lesser Amberjack, Almaco Jack, Banded Rudderfish, Queen Snapper, Mutton Snapper, Schoolmaster, Blackfin Snapper, Cubera Snapper, Gray (Mangrove) Snapper, Dog Snapper, Mahogany Snapper, Lane Snapper, Silk Snapper, Yellowtail Snapper, Wenchman, Goldface Tilefish, Blackline Tilefish, Anchor Tilefish, Blueline Tilefish, Tilefish, Rock Hind, Speckled Hind, Yellowedge Grouper, Red Hind, Misty Grouper, Warsaw Grouper, Snowy Grouper, Black Grouper, Yellowmouth Grouper, Scamp, Yellowfin Grouper, Hogfish, Dwarf Sand Perch, Sand Perch - The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Red Drum (Gulf of Mexico) - For the following overfishing definition, the fishing mortality rate (F) component has been approved under SFA guidelines, and was used to make the assessment contained in this report. Transitional Spawning Potential Ratio (SPR) was used to determine the overfished status, and was approved under pre-SFA guidelines.

The maximum fishing mortality threshold is the rate corresponding to a 30% static SPR. Overfishing occurs when the fishing mortality rates exceeds that associated with a 30% static SPR.

A stock is overfished when the transitional SPR is less than 20%.

Spiny Lobster (Caribbean) - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and transitional Spawning Potential Ratio (SPR) component.

When a spiny lobster stock or stock complex is overfished, overfishing is defined as the harvesting rate that is not consistent with a program that has been established to rebuild the stock or stock complex to the 20% SPR. When a spiny lobster stock or stock complex is not overfished, overfishing is defined as a harvesting rate that, if continued, would lead to a state that would not allow harvest at OY on a continuing basis. The SPR for spiny lobsters is measured in terms of eggs per recruit. For monitoring the SPR, the method described by Gregory et al. (1982) will be used to compare female fecundity by length class within fished areas to that in unfished areas.

A spiny lobster stock or stock complex is overfished when it is below the level of 20% of the Spawning Potential Ratio (SPR).

Queen Conch Resources of Puerto Rico and the U.S. Virgin Islands - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and biomass (B) component.

Queen Conch - When a queen conch stock is overfished, overfishing is defined as harvesting at a rate that is not consistent with a program that has been established to rebuild the stock to the 20% SSBR level. When a queen conch stock is not overfished, overfishing is defined as a harvesting rate that, if continued, would lead to a state of the stock or stock complex that would not at least allow a harvest of OY on a continuing basis.

A queen conch stock is overfished when it is below the level of 20% of the spawning stock biomass per recruit (SSBR) that would occur in the absence of fishing.

Atlantic Triton's Trumpet, Cameo Helmet, Caribbean Helmet, Caribbean Vase, Flame Helmet, Green Star Shell, Hawkwing Conch, Milk Conch, Roostertail Conch, True Tulip, West Indian Fighting Conch, Whelk (West Indian Top Shell) - No overfishing definition exists in the FMP.

Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands - The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains both a fishing mortality rate (F) and transitional Spawning Potential Ratio (SPR)

component.

Goliath Grouper (Jewfish), **Nassau Grouper** - Overfishing occurs when the fishing mortality rates exceeds that corresponding to a 20% SPR level.

A stock is overfished when the transitional SPR is less than 20%. Qualitative information suggests that these stocks are severely overfished due to a lack of occurrence in sampling and catches (prior to moratorium).

Ocean Surgeonfish, Doctorfish, Blue Tang, Frogfish, Flamefish, Conchfish, Trumpetfish, Scrawled Filefish, Queen Triggerfish, Whitespotted Filefish, Ocean Triggerfish, Black Durgon, Sargassum Triggerfish, Redlip Blenny, Peacock Flounder, Yellow Jack, Blue Runner, Horse-eye Jack, Black Jack, Bar Jack, Greater Amberjack, Almaco Jack, Longsnout Butterflyfish, Foureye Butterflyfish, Spotfin Butterflyfish, Banded Butterflyfish, Redspotted Hawkfish, Flying Gurnard, Atlantic Spadefish, Neon Goby, Rusty Goby, Royal Gramma, Porkfish, Margate, Tomtate, French Grunt, White Grunt, Bluestriped Grunt, Squirrelfish, Longspine Squirrelfish, Blackbar Soldierfish, Cardinal Soldierfish, Spanish Hogfish, Creole Wrasse, Yellowcheek Wrasse, Yellowhead Wrasse, Clown Wrasse, Puddingwife, Pearly Razorfish, Green Razorfish, Hogfish, Bluehead Wrasse, Black Snapper, Queen Snapper, Mutton Snapper, Schoolmaster, Blackfin Snapper, Gray Snapper, Dog Snapper, Mahogany Snapper, Lane Snapper, Silk Snapper, Yellowtail Snapper, Wenchman, Vermilion Snapper, Blackline Tilefish, Sand Tilefish, Yellow Goatfish, Spotted Goatfish, Chain Moray, Green Moray, Goldentail Moray, Batfish, Goldspotted Eel, Yellowhead Jawfish, Dusky Jawfish, Spotted Trunkfish, Honeycomb Cowfish, Scrawled Cowfish, Trunkfish, Smooth Trunkfish, Cherubfish, Queen Angelfish, Rock Beauty, Gray Angelfish, French Angelfish, Sergeant Major, Blue Chromis, Sunshinefish, Yellowtail Damselfish, Dusky Damselfish, Beaugregory, Bicolor Damselfish, Threespot Damselfish, Bigeye, Glasseye Snapper, Midnight Parrotfish, Blue Parrotfish, Striped Parrotfish, Rainbow Parrotfish, Princess Parrotfish, Queen Parrotfish, Redband Parrotfish, Redtail Parrotfish, Redfin Parrotfish, Stoplight Parrotfish, High-hat, Jackknife-fish, Spotted Drum, Scorpionfishes, Rock Hind, Graysby, Yellowedge Grouper, Coney, Red Hind, Red Grouper, Misty Grouper, Butter Hamlet, Swissguard Basslet, Yellowfin Grouper, Tiger Grouper, Creole-fish, Greater Soapfish, Orangeback Bass, Lantern Bass, Tobaccofish, Harlequin Bass, Chalk Bass, Caribbean Tonguefish, Sea Bream, Jolthead Porgy, Sheepshead Porgy, Pluma, Seahorses, Pipefishes, Sand Diver, Sharpnose Puffer, Porcupinefish - Overfishing occurs when the fishing mortality rates exceeds that corresponding to a 20% SPR level.

A stock is overfished when the transitional SPR is less than 20%.

Corals and Reef Associated Invertebrates of Puerto Rico and the U.S. Virgin Islands -The following overfishing definition was approved under pre-SFA guidelines and was used to make the assessments contained in this report. This definition contains only a fishing mortality rate (F) component.

Hydrocorals, Soft Corals, Gorgonian Corals, Hard Corals, Black Corals, False Corals, Sponges, Hydroids, Anemones, Colonial Anemones, Annelid Worms, other Gastropods, Bivalves, Cephalopods, Crustaceans, Bryozoans, Feather Stars, Sea Stars, Brittle and Basket Stars, Sea Urchins, Sea Cucumbers, Tunicates - Overfishing is defined as an annual level of harvest that exceeds OY. OY for stony corals, octocorals, live-rock and seagrasses is set at zero, except as may be authorized for scientific research, education and restoration purposes.

Green Algae, Red Algae, Seagrasses - No overfishing or overfished definitions exist in the FMP.

West Coast Salmon - The following overfishing definition was approved under post-SFA guidelines and was used to make the assessments contained in this report. This definition was used to make determinations for both the fishing mortality rate and stock level.

CALIFORNIA CENTRAL VALLEY CHINOOK (includes Sacramento River Fall, Sacramento River Spring, and Sacramento River Winter), NORTHERN CALIFORNIA COAST CHINOOK (includes Eel, Mattole, Mad, and Smith Rivers, Klamath River Fall, and Klamath River Spring), OREGON COAST CHINOOK (includes Southern Oregon, and Central and Northern Oregon), COLUMBIA RIVER BASIN CHINOOK (includes North Lewis River Fall, Lower River Hatchery Fall, Lower River Hatchery Spring, Upper Willamette Spring, Mid-River Bright Hatchery (Fall), Spring Creek Hatchery (Fall), Klickitat, Warm Springs, John Day, and Yakima Rivers (Spring), Snake River Fall, Snake River Spring / Summer, Upper River Bright (Fall), Upper River Summer, and Upper River Spring), WASHINGTON COAST CHINOOK (includes Willapa Bay Fall (natural), Willapa Bay Fall (hatchery), Grays Harbor Fall, Grays Harbor Spring, Quinault Fall, Queets Fall, Queets Spring / Summer, Hoh Fall, Hoh Spring / Summer, Quillayute Fall, Quillayute Spring / Summer, and Hoko Summer / Fall), PUGET SOUND CHINOOK (includes Eastern Strait of Juan de Fuca Summer / Fall, Skokomish Summer / Fall (Hood Canal), Nooksack Spring (early), Skagit Summer / Fall, Skagit Spring, Stillaguamish Summer / Fall, Snohomish Summer / Fall, Cedar River Summer / Fall (Lake Washington), White River Spring, Green River Summer / Fall, and Nisqually River Summer / Fall (South Puget Sound)), SOUTHERN BRITISH COLUMBIA CHINOOK (includes Coastal Stocks, and Fraser River), OREGON PRODUCTION INDEX AREA COHO (includes Central California Coast, Northern California, Oregon Coastal Natural, Columbia River Late (Hatchery), Columbia River Early (Hatchery), and Columbia River (Natural)], WASHINGTON COASTAL COHO (includes Willapa Bay (Hatchery), Grays Harbor, Quinault (Hatchery), Queets, Hoh, Quillayute Fall, Quillayute Summer (Hatchery), and Western Strait of Juan deFuca), PUGET SOUND COHO (includes Eastern Strait of Juan de Fuca, Hood Canal, Skagit, Stillaguamish, Snohomish, South Puget Sound (Hatchery)), SOUTHERN BRITISH COLUMBIA COAST COHO (includes Coastal Stocks, and Fraser River) and PINK (ODD-NUMBERED YEARS) (includes PUGET SOUND, and Fraser River) - With NOAA Fisheries approval of Amendment 14 to the Pacific Coast Salmon Plan (Salmon FMP) on September 27, 2000, the Pacific Fishery Management Council's (PFMC) criteria for an overfishing concern are met if, in three consecutive years, the post-season estimates indicate a natural stock has fallen short of its conservation objective (MSY, maximum sustainable production (MSP_2), or spawner floor as noted for some harvest rate objectives) as listed in Table 3-1 of the Salmon FMP. It is possible that a failure to meet conservation objectives for three consecutive years could result from normal variation, as has been seen in the past for several previously referenced salmon stocks which were reviewed under the PFMC's former overfishing definition. However, the occurrence of three consecutive years of reduced stock size or spawner escapements, depending on the magnitude of the short-fall, may signal the beginning of a critical downward trend which may result in fishing that jeopardizes the capacity of the stock to produce MSY over the long term if appropriate actions are not taken.

Chinook salmon (*Oncorhynchus tshawytscha*) and coho salmon (*O. kisutch*) are the main species caught in PFMC-managed ocean salmon fisheries. In odd-numbered years, catches of pink salmon (*O. gorbuscha*) can also be significant, primarily off Washington and Oregon. Therefore, while all species of salmon fall under the jurisdiction of this plan, it currently contains conservation objectives only for chinook, coho, pink (odd-numbered years only), and any salmon species listed under the Endangered Species Act (ESA) that is measurably impacted by PFMC fisheries. To the extent practicable, the Council has partitioned this coastwide aggregate of chinook, coho and pink salmon into various stock components with specific conservation objectives. A detailed listing of the individual stocks or stock complexes managed under the Salmon FMP, along with pertinent stock information and conservation objectives, is provided in Chapter 3 of the Salmon

FMP.

The Salmon FMP contains no fishery management objectives for **even-numbered year pink salmon, chum (*O. keta*), sockeye (*O. nerka*), steelhead (*O. mykiss*), or sea-run cutthroat (*O. clarki*)**. The PFMC does not manage fisheries for these species and incidental catches are inconsequential (low hundreds of fish each year) to very rare. Stocks without specified goals in the FMP are also provided significant protection against overfishing because the PFMC bases its management on the stock which is first reduced to its annual specified goal level by the fisheries. Such a stock could be the weakest stock or an abundant stock that is heavily impacted by ocean salmon fisheries.

To achieve optimum yield, prevent overfishing, and assure rebuilding of salmon stocks whose abundance has been depressed to an overfished level, the Salmon FMP establishes, to the extent practicable, conservation objectives to perpetuate the coastwide aggregate of salmon stocks covered by the Salmon FMP. The PFMC's stock conservation objectives (to be achieved annually) and other pertinent stock management information are contained in Table 3-1 of the Salmon FMP. Specific objectives are listed for natural and hatchery stocks that are part of the PFMC's preseason fishery option development process, including all stocks listed under the federal ESA. The objectives may be applicable to a single stock or a complex of interrelated stocks (those sharing similarities in life-history traits, geographic distribution, habitat preferences and genetic characteristics). Stocks that are not included in the preseason analyses may lack specific conservation objectives because the stock is not significantly impacted by ocean fisheries or insufficient management information is available from which to assess ocean fishery impacts directly. In the latter case, the conservation objective for a managed stock may serve to provide for the conservation of a closely related stock unless, or until, more specific management information can be developed.

The PFMC's conservation objectives for natural stocks may (1) be based on estimates for achieving MSY, an MSY proxy, or MSP_2, or (2) represent special data gathering or rebuilding strategies to approach MSY, which could be used to eventually develop MSY or MSP_2 objectives. The objectives have generally been developed through extensive analysis by the fishery management entities with direct management authority for the stock, or through joint efforts coordinated through the PFMC, or with other state, tribal or federal entities. Details of the conservation objectives are available in PFMC (1984), in individual amendment documents, and as referenced in Table 3-1. Most of the objectives for stocks north of Cape Falcon, Oregon, have been included in U.S. District Court orders. Under those orders for Washington coastal and Puget Sound stocks (U.S. v. Washington, 626 F. Supp. 1405 [1985] and Hoh v. Baldrige No. 81-742 [R] C), the treaty tribes and Washington Department of Fish and Wildlife may agree to annual spawner targets that differ from Salmon FMP objectives.

The Salmon FMP contains three exceptions to the application of overfishing criteria and subsequent PFMC actions for stocks or stock complexes with conservation objectives in Table 3-1: (1) hatchery stocks, (2) stocks for which PFMC management actions have inconsequential impacts, and (3) stocks listed under the ESA.

Salmon stocks important to ocean fisheries and comprised exclusively of hatchery production generally have conservation objectives expressed as an egg-take or the number of spawners returning to the hatchery rack to meet program objectives. The Salmon FMP recognizes these objectives and strives to meet them. However, these artificially produced stocks generally do not need the protection of overfishing criteria and special PFMC rebuilding programs to maintain long-term production. Because hatchery stocks can generally sustain significantly higher harvest exploitation rates than natural stocks, ocean fisheries rarely present a threat to their long-term survival. Therefore, hatchery stocks that meet this criteria are the first exception to the application of overfishing criteria.

Several natural stock components identified within the Salmon FMP are subject to minimal harvest impacts in PFMC fisheries because of migration timing and/or distribution and therefore are exceptions to the application of overfishing criteria. As a result, the PFMC's ability to affect the overall trend in the abundance of these components through harvest restrictions is limited. Components in this second exception are identified by a cumulative adult equivalent exploitation rate of less than 5% in ocean fisheries under PFMC jurisdiction during base periods utilized by the fishery regulation assessment models (1979-1982 for chinook and 1979-1981 for coho).

The PFMC regards stocks listed as endangered or threatened under the ESA as a third exception to the application of overfishing criteria of the Magnuson-Stevens Act. The ESA requires federal agencies whose actions may jeopardize listed salmon to consult with NOAA Fisheries. Because NOAA Fisheries implements ocean harvest regulations, it is both the action and consulting agency for actions taken under the Salmon FMP. To ensure there is no jeopardy, NOAA Fisheries conducts internal consultations with respect to the effects of ocean harvest on listed salmon. The PFMC implements NOAA Fisheries' guidance as necessary to avoid jeopardy, as well as in recovery plans approved by NOAA Fisheries. As a result of NOAA Fisheries' consultation, an incidental take statement may be issued which authorizes take of listed stocks under the FMP that would otherwise be prohibited under the ESA. The PFMC believes that the requirements of the ESA are sufficient to meet the intent of the Magnuson-Stevens Act overfishing provisions. Those provisions are structured to maintain or rebuild stocks to levels at or above MSY and require the PFMC to identify and develop rebuilding plans for overfished stocks.

Coastal Pelagics Species - The following overfishing definitions have been fully approved under SFA guidelines and were used to make the assessments contained in this report. For Pacific (Chub) Mackerel and Pacific Sardine, the definition contains both a fishing mortality rate (F) and biomass (B) component. For Jack Mackerel and Northern Anchovy (Central subpopulation), the overfishing definition contains only a fishing mortality rate (F) component. There are no overfishing and overfished definitions for Northern Anchovy (Northern subpopulation) and Market Squid. The PFMC has developed Amendment 10 to the Coastal Pelagics Species FMP, which defines overfishing criteria for market squid. This plan amendment is currently under review by NOAA Fisheries.

Pacific (Chub) Mackerel, Pacific Sardine - In operational terms, overfishing occurs whenever catch exceeds ABC, which is the annual value of the MSY control rule adopted for Pacific mackerel and Pacific sardine, which are actively managed species under the Coastal Pelagic Species FMP.

A stock is overfished when the biomass level is low enough to jeopardize the capacity of the stock to produce MSY on a continuing basis. For Pacific (Chub) Mackerel, the stock is overfished if the stock biomass is 18,200 mt or less. For Pacific Sardine, the stock is overfished if the 1+ stock biomass on July 1 is 50,000 mt or less.

Jack Mackerel, Northern Anchovy (Central subpopulation) - In operational terms, overfishing occurs whenever catch exceeds ABC, which, based on the default MSY control rule used for monitored species, is set at 25% of estimated MSY.

There is no threshold level of stock biomass defining overfished.

Northern Anchovy (Northern subpopulation), Market Squid - No overfishing or overfished definitions exist in the FMP; however, the PFMC has developed Amendment 10 to the Coastal Pelagics Species FMP, which defines overfishing criteria for market squid.

Washington, Oregon, and California Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Lingcod, Pacific Ocean Perch, Bocaccio, Canary Rockfish, Cowcod, Darkblotched Rockfish, Widow Rockfish, Yelloweye Rockfish, Bank Rockfish, Shortspine Thornyhead, Longspine Thornyhead, Yellowtail Rockfish, Pacific Whiting, Sablefish, Dover Sole, English Sole, Petrale Sole, Chilipepper Rockfish, Shortbelly Rockfish, Arrowtooth Flounder, Black Rockfish (North), Silvergrey Rockfish, Pacific Cod, Butter Sole, Curlfin Sole, Flathead Sole, Pacific Sanddab, Rex Sole, Rock Sole, Sand Sole, Starry Flounder, Aurora Rockfish, Black-and-Yellow Rockfish, Blackgill Rockfish, Blue Rockfish, Bronzespotted Rockfish, Brown Rockfish, Calico Rockfish, China Rockfish, Copper Rockfish, Dusky Rockfish, Flag Rockfish, Gopher Rockfish, Grass Rockfish, Greenblotched Rockfish, Greenspotted Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Honeycomb Rockfish, Kelp Rockfish, Mexican Rockfish, Olive Rockfish, Pink Rockfish, Quillback Rockfish, Redbanded Rockfish, Redstripe Rockfish, Rosethorn Rockfish, Rosy Rockfish, Rougheye Rockfish, Sharpchin Rockfish, Shortraker Rockfish, Speckled Rockfish, Splitnose Rockfish, Squarespot Rockfish, Starry Rockfish, Stripetail Rockfish, Tiger Rockfish, Vermilion Rockfish, Yellowmouth Rockfish, Leopard Shark, Soupfin Shark, Spiny Dogfish, Big Skate, California Skate, Longnose Skate, Ratfish, Finescale Codling, Pacific Rattail, Cabezon, Kelp Greenling, California Scorpionfish, Treefish – Overfishing occurs when the catch exceeds the fishing mortality rate needed to produce the maximum sustainable yield (F_{msy}) on a continual basis. The default F_{msy} proxy used for setting acceptable biological catches (ABCs) are as follows: For flatfish and whiting $F_{40\%}$, for rockfish (including thornyheads) $F_{50\%}$, and for other groundfish such as sablefish and lingcod $F_{45\%}$.

A stock is overfished if its current biomass is less than 25% of the unfished biomass level or if the current biomass is less than 50% of the biomass that would produce the maximum sustainable yield (MSY).

Overfishing and overfished parameters cannot be estimated for all species because of the wide range of knowledge available for the species managed under the FMP. Three categories of species are identified. The first includes the few species for which a quantitative stock assessment can be conducted on the basis of catch-at-age or other data. The second category includes a large number of species for which some biological indicators are available, but a quantitative analysis cannot be completed. The third category includes minor species that are caught, but for which there is, at best, only partial information on landed biomass.

Crustaceans of the Western Pacific - The overfishing definition was disapproved under SFA guidelines; however, the WPFMC has developed a revised Amendment 10 to the Western Pacific Crustaceans FMP containing new specifications of overfishing criteria. The plan amendment is currently under review by NOAA Fisheries. The following overfishing definition was approved under pre-SFA guidelines based on Spawning Potential Ratio (SPR) which is the ratio of the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit that would occur in the absence of fishing is equal to or less than 0.20. This definition, which contains only a biomass (B) component, was used to make the assessments contained in this report.

Spiny Lobster (Red and Green spiny lobster) - A stock is overfished when its SPR is equal to or less than 0.20.

Overfishing is currently not defined (fishing mortality is set equal to zero).

Slipper Lobster (**Common, Chinese, and Giant slipper lobster)** - A stock is overfished when its SPR is

equal to or less than 0.20.

Overfishing is currently not defined (fishing mortality is set equal to zero).

Kona Crab - No overfishing or overfished definitions exist in the FMP.

Western Pacific Precious Corals - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Pink Corals, Gold Corals, Bamboo Corals, Black Corals – Overfishing is defined as a fishing mortality rate that exceeds the maximum fishing mortality rate threshold for MSY (F = 0.066).

A stock is overfished when the total stock biomass is less than or equal to the minimum stock size threshold that corresponds to MSY. Spawning potential ratio (SPR) is used as a proxy for MSY and is set at SPR = 30%, or 0.3 B_0 (Bmsy estimator), where B_0 is the long-term average biomass at F= 0.

Bottomfish and Seamount Groundfish of the Western Pacific - The overfishing definition was disapproved under SFA guidelines; however, the WPFMC has developed a revised Amendment 6 to the Bottomfish and Seamount Groundfish of the Western Pacific FMP containing new specifications of overfishing criteria. The plan amendment is currently under review by NOAA Fisheries. The following overfishing definition was approved under pre-SFA guidelines based on Spawning Potential Ratio (SPR) which is the ratio of the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit in the absence of fishing, which is equal to or less than 0.20. This definition, which contains only a biomass (B) component, was used to make the assessments contained in this report.

Bottomfish: **Seabass (*hapu upuu*), Squirrelfish (Red) Snapper *(ehu)*, Red (Longtail) Snapper *(onaga)*, Red (silvermouth) Snapper *(lehi)*, Gray Snapper *(uku)*, Blueline Snapper *(taape)*, Yellowtail Snapper *(yellowtail kalekale)*, Pink Snapper *(opakapaka)*, Yelloweye Snapper *(yelloweye opakapaka)*, Pink Snapper Pristipomoides seiboldii *(kalekale)*, Snapper Pristipomoides zonatus *(gindai)*, Giant Trevally *(white ulua)*, Black Trevally *(black ulua)*, Thick Lip Trevally *(pig ulua)*, Amberjack *(kahala)*, Blacktip Grouper, Lunartail Grouper, Ambon Emperor *(mafuti)*, Redgill Emperor *(mafuti)*** - A stock is overfished when its SPR is equal to or less than 0.20.

Seamount Groundfish: **Pelagic Armorhead, Alfonsin, Raftfish** - A stock is overfished when its SPR is equal to or less than 0.20.

Pelagic Fisheries of the Western Pacific - The overfishing definitions were disapproved under SFA guidelines. The overfishing definition was disapproved under SFA guidelines; however, the WPFMC has developed a revised Amendment 8 to the Western Pacific Pelagics FMP containing new specifications of overfishing criteria. The plan amendment is currently under review by NOAA Fisheries. The following overfishing definition was approved under pre-SFA guidelines based on Spawning Potential Ratio (SPR) which is the ratio of the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit at the current level of fishing to the spawning stock biomass per recruit that would occur in the absence of fishing. This definition, which contains only a biomass (B) component, was used to make the assessments contained in this report.

Yellowfin Tuna (Central Western Pacific), Yellowfin Tuna (Eastern Tropical Pacific), Albacore (South Pacific), Albacore (North Pacific), Skipjack Tuna (Central Western Pacific), Skipjack Tuna (Eastern Tropical Pacific), Bigeye Tuna (Pacific), Striped Marlin, Swordfish (Pacific), Blue Marlin (Pacific), Shortbill Spearfish (Pacific), Wahoo (Pacific), Mahimahi (Pacific), Moonfish, other tuna relatives (Auxis spp., Scomber spp., and Allothunnus spp.), Black Marlin, Pomfret, Sailfish (Pacific), Oilfish - A stock is overfished when its Spawning Potential ratio (SPR) is equal to or less than 0.20.

Pelagic Sharks -A stock is overfished when its SPR is equal to or less than 0.35.

Gulf of Alaska Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. All stocks are covered, either directly or indirectly, by a definition containing a fishing mortality rate (F) component. For a stock managed individually, coverage is direct (i.e., the definition applies to the stock itself. For stocks managed jointly, as members of a complex, coverage is indirect (i.e., the definition applies to the complex as a whole, not to the member stocks separately).

Western/Central Walleye Pollock, Pacific Cod, Sablefish, Shortspine Thornyhead, Arrowtooth Flounder, Western Pacific Ocean Perch, Central Pacific Ocean Perch, Eastern Pacific Ocean Perch, Northern Rockfish, Eastern Walleye Pollock, Atka Mackerel, Alaska Plaice, Butter Sole, Deepsea Sole, Dover Sole, English Sole, Flathead Sole, Greenland Turbot, Rex Sole, Northern Rock Sole, Southern Rock Sole, Sand Sole, Starry Flounder, Yellowfin Sole, Dusky Rockfish, Yelloweye Rockfish, Aurora Rockfish, Blackgill Rockfish, Bocaccio, Chilipepper, Darkblotched Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Pygmy Rockfish, Redbanded Rockfish, Redstripe Rockfish, Rougheye Rockfish, Sharpchin Rockfish, Shortbelly Rockfish, Shortraker Rockfish, Silvergrey Rockfish, Splitnose Rockfish, Stripetail Rockfish, Vermilion Rockfish, Yellowmouth Rockfish, C-O Sole, Curlfin Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Roughscale Sole, Slender Sole, Widow Rockfish, Yellowtail Rockfish, Canary Rockfish, China Rockfish, Copper Rockfish, Quillback Rockfish, Rosethorn Rockfish, Tiger Rockfish, Broad Banded Thornyhead, Longspine Thornyhead, Blue Shark, Brown Cat Shark, Pacific Sleeper Shark, Salmon Shark, Sixgill Shark, Spiny Dogfish Shark, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Longnose Skate, Mud Skate, Whiteblotched Skate, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Dusky Sculpin, Great Sculpin, Red Irish Lord, Ribbed Sculpin, Roughspine Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Yellow Irish Lord, Octopus Octopus dofleini, Octopus Octopus leioderma, Octopus Opisthoteuthis california, Squid Berryteuthis magister, Squid Gonatopsis borealis, Squid Gonatopsis makko, Squid Gonatus sp., Squid Loligo opalescens, Squid Moroteuthis robusta, Squid Onychoteuthis borealijaponicus - Overfishing is defined as any rate of fishing in excess of the maximum fishing mortality threshold (MFMT). The catch corresponding to fishing at a rate equal to the MFMT is referred to as the "overfishing level" (OFL). This MFMT is prescribed through a set of six tiers [which are listed in Appendix 5] in descending order of preference, corresponding to descending order of information availability. The SSC will have final authority for determining whether a given item of information is "reliable" for the purpose of this definition, and may use either objective or subjective criteria in making such determinations. For tier 1, a "pdf" refers to a probability density function. For tiers 1-2, if a reliable pdf of B_{MSY} is available, the preferred point estimate of B_{MSY} is the geometric mean of its pdf. For tiers 1-5, if a reliable pdf of B is available, the preferred point estimate is the geometric mean of its pdf. For tiers 1-3, the coefficient α is set at a default value of 0.05, with the understanding that the SSC may establish a different value for a specific stock or stock complex as merited by the best available scientific information. For tiers (2-4), a designation of the form "$F_{X\%}$" refers to the F associated with an equilibrium level of spawning per recruit (SPR) equal to X% of the equilibrium level of spawning per recruit in the absence of any fishing. If reliable information sufficient to characterize the

entire maturity schedule of a species is not available, the SSC may choose to view SPR calculations based on a knife-edge maturity assumption as reliable. For tier 3, the term $B_{40\%}$ refers to the long-term average biomass that would be expected under average recruitment and $F=F_{40\%}$.

Western/Central Walleye Pollock, Pacific Cod, Sablefish, Shortspine Thornyhead, Arrowtooth Flounder, Western Pacific Ocean Perch, Central Pacific Ocean Perch, Eastern Pacific Ocean Perch, Northern Rockfish - The following definition, while not contained in the FMP, is contained in the Stock Assessment and Fishery Evaluation (SAFE) Report, and is the definition used to make the determinations contained in this report: A stock is overfished when it falls below its minimum stock size threshold (MSST), defined as whichever of the following is greater: ½ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock were exploited at the MFMT. The MSY level is interpreted as B_{MSY} in Tiers 1-2 and $B_{35\%}$ in Tier 3.

Eastern Walleye Pollock, Atka Mackerel, Alaska Plaice, Butter Sole, Deepsea Sole, Dover Sole, English Sole, Flathead Sole, Greenland Turbot, Rex Sole, Northern Rock Sole, Southern Rock Sole, Sand Sole, Starry Flounder, Yellowfin Sole, Dusky Rockfish, Yelloweye Rockfish, Aurora Rockfish, Blackgill Rockfish, Bocaccio, Chilipepper, Darkblotched Rockfish, Greenstriped Rockfish, Harlequin Rockfish, Pygmy Rockfish, Redbanded Rockfish, Redstripe Rockfish, Rougheye Rockfish, Sharpchin Rockfish, Shortbelly Rockfish, Shortraker Rockfish, Silvergrey Rockfish, Splitnose Rockfish, Stripetail Rockfish, Vermilion Rockfish, Yellowmouth Rockfish, C-O Sole, Curlfin Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Roughscale Sole, Slender Sole, Black Rockfish, Widow Rockfish, Yellowtail Rockfish, Canary Rockfish, China Rockfish, Copper Rockfish, Quillback Rockfish, Rosethorn Rockfish, Tiger Rockfish, Broad Banded Thornyhead, Longspine Thornyhead, Blue Shark, Brown Cat Shark, Pacific Sleeper Shark, Salmon Shark, Sixgill Shark, Spiny Dogfish Shark, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Longnose Skate, Mud Skate, Whiteblotched Skate, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Dusky Sculpin, Great Sculpin, Red Irish Lord, Ribbed Sculpin, Roughspine Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Yellow Irish Lord, Octopus Octopus dofleini, Octopus Octopus leioderma, Octopus Opisthoteuthis california, Squid Berryteuthis magister, Squid Gonatopsis borealis, Squid Gonatopsis makko, Squid Gonatus sp., Squid Loligo opalescens, Squid Moroteuthis robusta, Squid Onychoteuthis borealijaponicus - No MSY level, and therefore no MSST, can be specified for Tiers 4-6.

Alaska Salmon - For the following overfishing definitions, both the fishing mortality rate (F) and biomass (B) components were approved under SFA guidelines, and were used to make the assessments contained in this report.

Salmon Fisheries in the EEZ off the Coast of Alaska - These overfishing definitions separate the salmon stocks caught in the southeast Alaska (SEAK) EEZ into three tiers. Tier 1 stocks are chinook stocks covered by the Pacific Salmon Treaty (PST)[1]. The overfishing definition is based on a harvest based on a relationship between a pre-season relative abundance index generated by the Pacific Salmon Commission's Chinook Technical Committee and a harvest control rule specified in the PST. Tier 2 are coho salmon stocks. Tier 3 stocks are coho, pink, chum, and sockeye salmon stocks managed as mixed-species complexes, with coho salmon stocks as indicator stocks.

[1]Chapter 3 of Annex IV of the Pacific Salmon Treaty (PST) as amended June 30, 1999 (also referred to as the US/Canada bilateral agreement for the Southeast Alaska all-gear chinook catch)

Tier 1: Chinook stocks

1) Under the PST, the MSY control rule consists of a segmented linear relationship between catch and relative abundance.

2) The fishing mortality rate for these stocks is expressed as cumulative catch per generation time.

3) The maximum fishing mortality threshold is 1.075 times the fishing mortality rate associated with the MSY control rule.

4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stocks are being subjected to overfishing.

5) The productive capacity of a stock group is measured as the sum of the indicator stocks' escapements from the most recent generation.

6) The minimum stock size threshold for a stock group is equal to one-half the sum of the indicator stocks' MSY escapement goals from the most recent generation, where each MSY escapement goal is set at the midpoint of the respective escapement goal range established by the Chinook Technical Committee.

7) Should a stock group's productive capacity fall below the MSST in any year, it will be determined that the stock group is overfished.

Tier 2: Coho stocks managed as individual units

1) The MSY control rule is of the "constant escapement" form. Specifically, the catch corresponding to the control rule in any given year is equal to the amount that would result in a post-harvest run size equal to the MSY escapement goal, unless the pre-harvest run size fails to exceed the MSY escapement goal, in which case the catch corresponding to the control rule is zero.

2) The fishing mortality rate for these stocks is expressed as an exploitation rate, and is computed as a weighted average of run-specific exploitation rates observed in the stock from the most recent generation.

3) The maximum fishing mortality threshold for these stocks is computed as a weighted average of run-specific exploitation rates corresponding to the MSY control rule from the most recent generation.

4) Should the fishing mortality rate exceed the MFMT in any year, it will be determined that the stock is being subjected to overfishing.

5) The productive capacity of a stock is measured as the sum of the stock's escapements from the most recent generation.

6) The minimum stock size threshold for a stock is equal to one-half the sum of the stock's MSY escapement goals from the most recent generation.

7) Should a stock's productive capacity fall below the MSST in any year, it will be determined that the stock is overfished.

Tier 3: Coho, sockeye, pink, and chum salmon stocks managed as complexes

The MSY control rule is of the "constant escapement" form. The difference with respect to Tier 2 is not the *form* of the control rule, but rather the level of aggregation at which it is applied. Using the same definitions and criteria described under Tier 2, a determination that one or more indicator coho stocks is being subjected to overfishing or is overfished will constitute a determination that the respective stock complex is being subjected to overfishing or is overfished, except that overfishing of one or more stocks in a stock complex may be permitted, and will not result in a determination that the entire stock complex is being subjected to overfishing, under the conditions set forth in 50 CFR §600.310(d)(6).

Pink Salmon, Sockeye Salmon, Chum Salmon, Coho Salmon - A stock is overfished if it falls below MSST in any year, which is equal to one-half the sum of the indicator coho stocks' MSY escapement goals from the most recent T coho years.

Chinook Salmon - A stock is overfished if it falls below MSST in any year, which is equal to one-half the sum of the indicator stocks' MSY escapement goals from the most recent Tchin years, where each MSY escapement goal is set at the midpoint of the respective escapement goal range established by the Chinook Technical Committee under the Pacific Salmon Treaty.

Bering Sea/Aleutian Islands Groundfish - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. All stocks are covered, either directly or indirectly, by a definition containing a fishing mortality rate (F) component. For a stock managed individually, coverage is direct (i.e., the definition applies to the stock itself). For stocks managed jointly, as members of a complex, coverage is indirect (i.e., the definition applies to the complex as a whole, not to the member stocks separately).

Eastern Bering Sea Walleye Pollock, Aleutian Islands Walleye Pollock, Bogoslof Walleye Pollock, Pacific Cod, Yellowfin Sole, Greenland Turbot, Arrowtooth Flounder, Rock Sole, Flathead Sole, Eastern Bering Sea Sablefish, Aleutian Islands Sablefish, Pacific Ocean Perch, Atka Mackerel, Alaska Plaice, Squid *Berryteuthis magister*, Squid *Onychoteuthis borealijaponicus*, Longspine Thornyhead, Shortspine Thornyhead, Northern Rockfish, Bering Flounder, Kamchatka Flounder, Sharpchin Rockfish, Shortraker Rockfish, Rougheye Rockfish, Arctic Flounder, Butter Sole, C-O Sole, California Tonguefish, Curlfin Sole, Deepsea Sole, Dover Sole, English Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Rex Sole, Roughscale Sole, Sand Sole, Slender Sole, Starry Flounder, Black Rockfish, Darkblotched Rockfish, Dusky Rockfish, Gray Rockfish, Harlequin Rockfish, Redbanded Rockfish, Redstripe Rockfish, Silvergrey Rockfish, Yelloweye Rockfish, Broad Banded Thornyhead, Antlered Sculpin, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Blob Sculpin, Brown Irish Lord, Butterfly Sculpin, Calico Sculpin, Crested Sculpin, Dusky Sculpin, Great Sculpin, Pacific Staghorn Sculpin, Plain Sculpin, Red Irish Lord, Ribbed Sculpin, Scissortail Sculpin, Shorthorn Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Warty Sculpin, Yellow Irish Lord, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Deepsea Skate, Golden Skate, Longnose Skate, Mud Skate, Okhotsk Skate, White-Blotched Skate, Whitebrow Skate, Pacific Sleeper Shark, Salmon Shark, Spiny Dogfish Shark, Octopus *Octopus dofleini*, Octopus *Opisthoteuthis california*) - Overfishing is defined as any rate of fishing in excess of the maximum fishing mortality threshold (MFMT). The catch corresponding to fishing at a rate equal to the MFMT is referred to as the "overfishing level" (OFL). This MFMT is prescribed through a set of six tiers [which are listed in Appendix 5] in descending order of preference, corresponding to descending order of information availability. The SSC will have final authority for determining whether a given item of information is "reliable" for the purpose of this definition, and may use either objective or subjective criteria in making such determinations. For tier 1, a "pdf" refers to a probability density function. For Tiers 1-2, if a reliable pdf of B_{MSY} is available, the preferred point estimate of B_{MSY} is the geometric mean of its pdf. For

Tiers 1-5, if a reliable pdf of B is available, the preferred point estimate is the geometric mean of its pdf. For Tiers 1-3, the coefficient α is set at a default value of 0.05, with the understanding that the SSC may establish a different value for a specific stock or stock complex as merited by the best available scientific information. For Tiers 2-4, a designation of the form "$F_{X\%}$" refers to the F associated with an equilibrium level of spawning per recruit (SPR) equal to X% of the equilibrium level of spawning per recruit in the absence of any fishing. If reliable information sufficient to characterize the entire maturity schedule of a species is not available, the SSC may choose to view SPR calculations based on a knife-edge maturity assumption as reliable. For Tier 3, the term $B_{40\%}$ refers to the long-term average biomass that would be expected under average recruitment and $F=F_{40\%}$.

Eastern Bering Sea Walleye Pollock, Pacific Cod, Yellowfin Sole, Greenland Turbot, Arrowtooth Flounder, Rock Sole, Flathead Sole, Eastern Bering Sea Sablefish, Aleutian Islands Sablefish, Pacific Ocean Perch, Atka Mackerel, Alaska Plaice - The following definition, while not contained in the FMP, is contained in the Stock Assessment and Fishery Evaluation (SAFE) Report, and is the definition used to make the determinations contained in this report: A stock is overfished when it falls below its minimum stock size threshold (MSST), defined as whichever of the following is greater: ½ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock were exploited at the MFMT. The MSY level is interpreted as B_{MSY} in Tiers 1-2 and $B_{35\%}$ in Tier 3.

Aleutian Islands Walleye Pollock, Bogoslof Walleye Pollock, Squid *Berryteuthis magister,* Squid *Onychoteuthis borealijaponicus*, Longspine Thornyhead, Shortspine Thornyhead, Northern Rockfish, Bering Flounder, Kamchatka Flounder, Sharpchin Rockfish, Shortraker Rockfish, Rougheye Rockfish, Arctic Flounder, Butter Sole, C-O Sole, California Tonguefish, Curlfin Sole, Deepsea Sole, Dover Sole, English Sole, Hybrid Sole, Longhead Dab, Pacific Sanddab, Petrale Sole, Rex Sole, Roughscale Sole, Sand Sole, Slender Sole, Starry Flounder, Black Rockfish, Darkblotched Rockfish, Dusky Rockfish, Gray Rockfish, Harlequin Rockfish, Redbanded Rockfish, Redstripe Rockfish, Silvergrey Rockfish, Yelloweye Rockfish, Broad Banded Thornyhead, Antlered Sculpin, Armorhead Sculpin, Bigmouth Sculpin, Blackfin Sculpin, Blob Sculpin, Brown Irish Lord, Butterfly Sculpin, Calico Sculpin, Crested Sculpin, Dusky Sculpin, Great Sculpin, Pacific Staghorn Sculpin, Plain Sculpin, Red Irish Lord, Ribbed Sculpin, Scissortail Sculpin, Shorthorn Sculpin, Spinyhead Sculpin, Tadpole Sculpin, Thorny Sculpin, Warty Sculpin, Yellow Irish Lord, Alaska Skate, Aleutian Skate, Bering Skate, Big Skate, Black Skate, Commander Skate, Deepsea Skate, Golden Skate, Longnose Skate, Mud Skate, Okhotsk Skate, White-Blotched Skate, Whitebrow Skate, Pacific Sleeper Shark, Salmon Shark, Spiny Dogfish Shark, Octopus *Octopus dofleini*, Octopus *Opisthoteuthis california*) - No MSY level, and therefore no MSST, can be specified for Tiers 4-6.

Bering Sea/Aleutian Islands King and Tanner Crabs - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Blue King Crab (Pribilof Islands, Saint Matthew Island, Saint Lawrence Island), Golden King Crab (Aleutian Islands, Pribilof Islands, Northern District), Red King Crab (Bristol Bay, Norton Sound, Pribilof Islands, Aleutian Islands), Aleutian Islands Scarlet King Crab, Bering Sea Snow Crab, Tanner Crab [Bering Sea, Bering Sea Triangle, Bering Sea Grooved, Eastern Aleutian Islands, Eastern Aleutian Islands Triangle, Eastern Aleutian Islands Grooved, Adak (Western Aleutians), Western Aleutian Islands Grooved] -Overfishing is defined as any rate of fishing mortality in excess of M, where M = 0.2 for all species of king crab and M = 0.3 for all *Chionoecetes* species.

A stock is overfished when it falls below the minimum stock size threshold (MSST), which is equal to ½ the

MSY stock size. MSY stock size equals the average mature biomass observed over the past 15 years, from 1983-1997.

Alaska Weathervane Scallops - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Overfishing is defined as level of fishing mortality that jeopardizes the long-term capacity of a stock or stock complex to produce MSY on a continuing basis. Overfishing is established as a fishing rate in excess of the natural mortality rate (M). Hence, $F_{overfishing} \geq M=0.13$. MSY is the largest long-term average catch that can be taken from a stock under prevailing ecological and environmental conditions. MSY for weathervane scallops is 1.24 million pounds of shucked adductor muscles. MSY is calculated based on the average catch from 1990-1997 (1995 data not included as only an abbreviated scallop season occurred). MSY control rule is a harvest strategy expected to result in a long-term average catch approximating MSY. The MSY control rule is based on natural mortality, using the estimate of M=0.13, the MSY control rule is $F_{msy}=M$. No control rule for spiny, pink, or rock scallops is recommended at this time.

A stock is overfished when it falls below the minimum stock size threshold (MSST), which is equal to ½ MSY stock size = 4.76 million pounds.

Atlantic Billfishes - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Blue Marlin (North Atlantic), White Marlin (North Atlantic), Sailfish (West Atlantic), Spearfish (West Atlantic) – Overfishing occurs when the MFMT exceeds F_{MSY}. The relative fishing mortality rates are as follows: Blue Marlin (North Atlantic) ($F_{1999}/F_{MSY} = 4.0$), White Marlin (North Atlantic) ($F_{1999}/F_{MSY} = > 7$), Sailfish ($F_{1995}/F_{MSY} = 1.4$; a 2001 assessment was unable to estimate F_{2000}), and Spearfish (F/F_{msy} = not estimated).

A stock is overfished when the stock biomass level falls below the MSST, which is set at $(1\text{-}M)B_{MSY}$, where M is the instantaneous natural mortality rate. The relative biomass levels are as follows: Blue Marlin (North Atlantic) ($B_{2000}/B_{MSY} = 0.4$), White Marlin (North Atlantic) ($B_{2000}/B_{MSY} = 0.15$), and Sailfish / Spearfish (West Atlantic) ($B_{1992/96}/B_{MSY} = 0.62$; a 2001 assessment was unable to estimate B_{2000} for sailfish only or sailfish/spearfish complex).

Atlantic Tunas, Swordfish, and Sharks - The following overfishing definition has been fully approved under SFA guidelines and was used to make the assessments contained in this report. The definition contains both a fishing mortality rate (F) and biomass (B) component.

Bigeye Tuna (Atlantic), Albacore (North Atlantic), Yellowfin Tuna (West Atlantic), Skipjack Tuna (West Atlantic), Bluefin Tuna (West Atlantic), Swordfish (North Atlantic), Sandbar Shark, Blacktip Shark, Dusky Shark, Spinner Shark, Silky Shark, Bull Shark, Bignose Shark, Narrowtooth Shark, Galapagos Shark, Night Shark, Caribbean Reef Shark, Tiger Shark, Lemon Shark, Sand Tiger Shark, Bigeye Sand Tiger Shark, Nurse Shark, Scalloped Hammerhead Shark, Great Hammerhead Shark, Smooth Hammerhead Shark, Whale Shark, Basking Shark, White Shark, Atlantic Sharpnose Shark, Caribbean Sharpnose Shark, Finetooth Shark, Blacknose Shark, Smalltail Shark, Bonnethead Shark,

Atlantic Angel Shark, Shortfin Mako Shark, Longfin Mako Shark, Porbeagle Shark, Thresher Shark, Bigeye Thresher Shark, Blue Shark, Oceanic Whitetip Shark, Sevengill Shark, Sixgill Shark, Bigeye Sixgill Shark, Iceland Cat Shark, Smallfin Cat Shark, Deepwater Cat Shark, Broadgill Cat Shark, Marbled Cat Shark, Blotched Cat Shark, Chain Dogfish, Dwarf Catshark, Japanese Gulper Shark, Gulper Shark, Little Gulper Shark, Kitefin Shark, Flatnose Gulper Shark, Portuguese Shark, Greenland Shark, Lined Lanternshark, Broadband Dogfish, Caribbean Lanternshark, Great Lanternshark, Smooth Lanternshark, Fringefin Lanternshark, Green Lanternshark, Cookiecutter Shark, Bigtooth Cookiecutter, Smallmouth Velvet Dogfish, Pygmy Shark, Roughskin Spiny Dogfish, Blainville's Dogfish, Cuban Dogfish, Bramble Shark, American Sawshark, Florida Smoothhound, Smooth Dogfish - Overfishing occurs when the MFMT is exceeded, which is set at $F_{limit} = F_{MSY}$. The relative fishing mortality rates (F_{year}/F_{MSY}) are as follows: North Atlantic Swordfish (F_{98}/F_{msy}=1.34), West Atlantic Bluefin Tuna (F_{99}/F_{MSY} = 1.37-2.22, low vs high recruitment), Bigeye Tuna (F_{98}/F_{MSY} = 1.50 - 1.82), North Atlantic Albacore Tuna (F_{99}/F_{MSY} = 1.10), Yellowfin Tuna (F_{99}/F_{MSY} = 0.88-1.16), Skipjack Tuna (F_{00}/F_{msy} = not estimated), Blacktip Shark (F_{97}/F_{MSY} = 3.52 (baseline)), Sandbar Shark (F_{97}/F_{MSY} = 2.70 (baseline)), Large Coastal Sharks (F_{97}/F_{MSY} = 6.34 (baseline)), Pelagic Sharks (F/F_{msy} = not estimated), Small Coastal Sharks (F_{00}/F_{MSY} = 0.83), Atlantic Sharpnose Sharks (F_{00}/F_{msy} =0.14), Bonnethead (F_{00}/F_{msy} = 0.35), Finetooth Shark (F_{00}/F_{msy} = 3.42), Blacknose Shark (F_{00}/F_{msy} = 0.61), and Deepwater/Other Sharks (F/F_{msy} = not estimated).

A stock is overfished when the stock level biomass falls below MSST, which is set at $MSST = B_{limit} = (1-M)B_{MSY}$ when $M < 0.5$; $MSST = B_{limit} = 0.5B_{MSY}$ when $M \geq 0.5$. For Yellowfin Tuna, $MSST = 0.5B_{MSY}$. The relative biomass levels are as follows: (B_{year}/B_{MSY}) for North Atlantic Swordfish (B_{98}/B_{MSY} = 0.65), West Atlantic Bluefin Tuna (SSB_{99}/SSB_{MSY} = 0.36-0.10, low vs high recruitment), Bigeye Tuna (B_{98}/B_{MSY} = 0.57-0.63), North Atlantic Albacore Tuna (B_{99}/B_{MSY} = 0.68), Yellowfin Tuna (B_{99}/B_{MSY} = 1.03), Skipjack Tuna (B_{00}/B_{msy} = not estimated), Blacktip Shark* (N_{98}/N_{MSY} = 0.50 (baseline)), Sandbar Shark* (N_{98}/N_{MSY} = 0.58 (baseline)), Large Coastal Sharks* (N_{98}/N_{MSY} = 0.30 (baseline)), Pelagic Sharks (B/B_{msy} = not estimated), Small Coastal Sharks (B_{00}/B_{MSY} = 2.38), Atlantic Sharpnose Shark (B_{00}/B_{msy} = 3.16), Bonnethead (B_{00}/B_{msy} = 2.78), Finetooth Shark (B_{00}/B_{msy} = 2.38), Blacknose Shark (B_{00}/B_{msy} = 3.15), and Deepwater/Other Sharks (B/B_{msy} = not estimated).

*N is the number of fish, rather than biomass or yield in weight.

APPENDIX 3. OVERFISHING DEFINITIONS FOR SPECIES NOT CONTAINED IN FEDERAL FISHERY MANAGEMENT PLANS

American Lobster - The following overfishing definition was approved under pre-SFA guidelines and the assessments contained in this report are based on this definition. This definition contains only a fishing mortality rate (F) component.

The American lobster resource is considered recruitment overfished when, throughout its range, the fishing mortality rate (F), given the regulations in place at that time under the suite of regional management measures, results in a reduction in estimated egg production per recruit to 10% or less of a non-fished population (F 10%).

Atlantic Menhaden - The overfishing definition contained in the FMP has F-based and SSB-based benchmarks. The F-based benchmarks are $F_{threshold} = 1.3$ and $F_{target} = 1.0$, and the SSB-based benchmarks are $SSB_{threshold} = 20{,}570$ mt and $SSB_{target} = 37{,}400$ mt.

Northern Shrimp - There is currently no approved ASMFC overfishing definition, however, the SARC has recommended an interim management target F(1999-2000) = 0.34 = F40%.

Tautog - The overfishing definition is contained in the ASMFC Tautog FMP and was used to make the assessment contained in this year's report. This definition contains only a fishing mortality rate (F) component.

Overfishing occurs when F exceeds the threshold, or the interim, fishing rate of 0.24. The FMP established a target fishing rate equal to that of natural mortality (F=M=0.15).

Weakfish - The overfishing definition contained in the FMP under development has not been formally approved, but was used to make the assessment regarding stock level in this year's report.

A stock is overfished when the biomass is less than B_{MSY}. The best available estimate of B_{MSY} proxy is 53,6000 mt.

Pacific Halibut - A rate of fishing that exceeds the constant exploitation yield. The constant exploitation yield is computed using a harvest rate of 0.20 of the exploitable biomass (8-year+ Pacific halibut).

APPENDIX 4. OVERFISHING DEFINITIONS FROM FISHERY MANAGEMENT PLANS UNDER DEVELOPMENT

Northeast Skate Complex

The Skate FMP is currently under development. The following overfishing definitions have not been approved, but are one of the options currently being considered by the New England Fishery Management Council. These definitions represent an option based solely on the information and advice of the most recent stock assessment (SAW-30, 2000). Some of these definitions include only a biomass (B) component, others include both a biomass component and a fishing mortality rate (F) component. These definitions were used for the assessments contained in this report.

Winter Skate - Overfishing occurs when the three-year moving average of the autumn survey mean weight per tow declines 20% or more, or when the autumn survey mean weight per tow declines for three consecutive years. Winter skate is in an overfished condition when the three-year moving average of the autumn survey mean weight per tow is less than one-half of the 75th percentile of the mean weight per tow observed in the autumn trawl survey from the selected reference time series. The reference points and selected time series may be re-specified through a peer-reviewed process and/or as updated stock assessments are completed.

Barndoor Skate - A stock is in an overfished condition when the 3-year moving average of the NEFSC autumn survey mean weight per tow is less than ½ of the mean weight per tow observed in the autumn trawl survey from 1963-1967 (0.81 kg/tow, SAW-30, 2000).

Thorny Skate - A stock is in an overfished condition when the 3-year moving average of the NEFSC autumn survey mean weight per tow is less than ½ of the 75th percentile of the mean weight per tow observed in the autumn trawl survey during 1963-1998 (2.20 kg/tow, SAW-30, 2000).

Smooth Skate - A stock is in an overfished condition when the 3-year moving average of the NEFSC autumn survey mean weight per tow is less than ½ of the 75th percentile of the mean weight per tow observed in the autumn trawl survey during 1963-1998 (0.16 kg/tow, SAW-30, 2000).

Little Skate - Little skate is in an overfished condition when the three-year moving average of the spring mean weight per tow is less than one-half of the 75th percentile of the mean weight per tow observed in the spring trawl survey from the selected reference time series. Overfishing occurs when the three-year moving average of the spring survey mean weight per tow declines 20% or more, or when the spring survey mean weight per tow declines for three consecutive years.

Clearnose Skate - A stock is in an overfished condition when the 3-year moving average of the NEFSC autumn survey mean weight per tow is less than ½ of the 75th percentile of the mean weight per tow observed in the autumn trawl survey during 1975-1998 (0.28 kg/tow, SAW-30, 2000).

Rosette Skate - A stock is in an overfished condition when the 3-year moving average of the NEFSC autumn survey mean weight per tow is less than ½ of the 75th percentile of the mean weight per tow observed in the autumn trawl survey during 1967-1998 (0.01 kg/tow, SAW-30, 2000).

APPENDIX 5. SIX TIERS COMPRISING THE OVERFISHING DEFINITION FOR GULF OF ALASKA AND BERING SEA /ALEUTIAN ISLANDS GROUNDFISH

See Appendix 6 for definitions of acronyms used in this appendix.

1) Information available: Reliable point estimates of B and B_{MSY} and reliable pdf of F_{MSY}.

1a) Stock status: $B/B_{MSY} > 1$
$F_{OFL} = \mu_A$, the arithmetic mean of the pdf
$F_{ABC} \leq \mu_H$, the harmonic mean of the pdf

1b) Stock status: $\alpha < B/B_{MSY} \leq 1$
$F_{OFL} = \mu_A \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
$F_{ABC} \leq \mu_H \times (B/B_{MSY} - \alpha) / (1 - \alpha)$

1c) Stock status: $B/B_{MSY} \leq \alpha$
$F_{OFL} = 0$
$F_{ABC} = 0$

2) Information available: Reliable point estimates of B, B_{MSY}, F_{MSY}, $F_{35\%}$, and $F_{40\%}$.

2a) Stock status: $B/B_{MSY} > 1$
$F_{OFL} = F_{MSY}$
$F_{ABC} \leq F_{MSY} \times (F_{40\%}/F_{35\%})$

2b) Stock status: $\alpha < B/B_{MSY} \leq 1$
$F_{OFL} = F_{MSY} \times (B/B_{MSY} - \alpha) / (1 - \alpha)$
$F_{ABC} \leq F_{MSY} \times (F_{40\%}/F_{35\%}) \times (B/B_{MSY} - \alpha) / (1 - \alpha)$

2c) Stock status: $B/B_{MSY} \leq \alpha$
$F_{OFL} = 0$
$F_{ABC} = 0$

3) Information available: Reliable point estimates of B, $B_{40\%}$, $F_{35\%}$, and $F_{40\%}$.

3a) Stock status: $B/B_{40\%} > 1$
$F_{OFL} = F_{35\%}$
$F_{ABC} \leq F_{40\%}$

3b) Stock status: $\alpha < B/B_{40\%} \leq 1$
$F_{OFL} = F_{35\%} \times (B/B_{40\%} - \alpha) / (1 - \alpha)$
$F_{ABC} \leq F_{40\%} \times (B/B_{40\%} - \alpha) / (1 - \alpha)$

3c) Stock status: $B/B_{40\%} \leq \alpha$
$F_{OFL} = 0$
$F_{ABC} = 0$

4) Information available: Reliable point estimates of B, $F_{35\%}$, and $F_{40\%}$.
$F_{OFL} = F_{35\%}$
$F_{ABC} \leq F_{40\%}$

5) Information available: Reliable point estimates of B and natural mortality rate M.
$F_{OFL} = M$
$F_{ABC} \leq 0.75 \times M$

6) Information available: Reliable catch history from 1978 through 1995.
OFL = the average catch from 1978 through 1995, unless an alternative value is established by the SSC on the basis of the best available scientific information.
ABC ≤ 0.75 x OFL

APPENDIX 6. ACRONYMS USED IN THE TEXT AND APPENDICES

α - The relative stock size at which the overfishing level falls to zero, set at a default value of 0.05 with the understanding that the SSC may establish a different value for a specific stock or stock complex as merited by the best available scientific information.

ABC - Allowable Biological Catch - A term that refers to the range of allowable catch for a species or species group. It is set each year by a scientific group. The ABC estimates are used to set the annual total allowable catch (TAC). This term is also referred to as Acceptable Biological Catch.

ASMFC - Atlantic States Marine Fisheries Commission - Serves as a deliberative body of the Atlantic coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell, and anadromous species.

B - The weight (biomass) of a group of fish.

B_{MSY} - The weight (biomass) of a group of fish necessary to produce MSY on a continuing basis.

CFMC - Caribbean Fishery Management Council.

CPUE - Catch Per Unit of Effort - The number of fish caught by an amount of effort. Typically, effort is a combination of gear type, gear size, and length of time gear is used. Catch per unit of effort is often used as a measurement of relative abundance.

EEZ - Exclusive Economic Zone - All waters from the seaward boundary of coastal states out to 200 nautical miles.

EPR - Eggs-Per-Recruit - The average number of eggs produced by an individual fish that has been recruited, i.e., that moved into a certain class, such as the spawning class or fishing-size class. Used as an index of abundance.

ESA - Endangered Species Act.

F - Fishing Mortality Rate - A measurement of the rate of removal of fish from a population by fishing. Fishing mortality rate can be reported as either discrete or instantaneous. Discrete mortality is the percentage of fish dying in one year. Instantaneous mortality is the rate at which fish are dying at a point in time

F_{ABC} - The level of fishing mortality that results in the allowable biological catch.

F_{MAX} - The level of fishing mortality that results in the greatest yield from the fishery.

F_{MSY} - The level of fishing mortality that results in the maximum sustainable yield.

F_{OF} - The level of fishing mortality defined as overfishing.

F_{OFL} - The level of fishing mortality associated with overfishing.

$F_{20\%}$ - The level of fishing mortality that results in a spawning potential ratio of 20% of the maximum.

$F_{25\%}$ - The level of fishing mortality that results in a spawning potential ratio of 25% of the maximum.

$F_{30\%}$ - The level of fishing mortality that results in a spawning potential ratio of 30% of the maximum.

$F_{35\%}$ - The level of fishing mortality that results in a spawning potential ratio of 30% of the maximum.

$F_{40\%}$ - The level of fishing mortality that results in a spawning potential ratio of 40% of the maximum.

$F_{0.1}$ - The point on the spawning per recruit curve at which the level of spawning per recruit is 35% of 40% of the maximum.

FAKR - NOAA Fisheries, Alaska Region.

FMP - Fishery Management Plan - A plan to achieve specified management goals for a fishery.

GMFMC - Gulf of Mexico Fishery Management Council.

GSMFC - Gulf States Marine Fisheries Commission - Serves as a deliberative body of the Gulf of Mexico coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell, and anadromous species.

HMS - Highly Migratory Species Management Division - Develops fishery policies designed to manage any highly migratory species (tuna species, marlins, oceanic sharks, sailfishes, and swordfish) fishery that is within the geographical authority of more than one Council.

LTPY - Long-Term Potential Yield - The maximum long-term average catch that can be achieved from a resource.

MAFMC - Mid-Atlantic Fishery Management Council.

MFMT – Maximum Fishing Mortality Threshold – The level or rate of fishing mortality, that if exceeded, constitutes overfishing because it jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

MSP_1 - Maximum Spawning Potential - See SPR.

MSP_2 - Maximum Sustainable Production - The adult spawning population that will, on average, maximize the biomass of juvenile outmigrants with average environmental conditions. Conservation objectives for specific salmon stocks managed under the Pacific Coast Salmon Plan are currently based on either MSP principles for stocks managed primarily for natural production or upon hatchery escapement needs for stocks managed for artificial production.

MSST – Minimum Stock Size Threshold – The minimum size of the stock or stock complex that is required to produce MSY, the size below which the stock or stock complex is determined to be overfished. The threshold should equal whichever of the following is greater: ½ the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock were exploited at the maximum fishing mortality threshold.

MSY - Maximum Sustainable Yield - The largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

NEFMC - New England Fishery Management Council.

NEFSC - NOAA Fisheries, Northeast Fisheries Science Center.

NPFMC - North Pacific Fishery Management Council.

OLO - *Our Living Oceans* - A report on the status of U.S. living marine resources.

OY - Optimum Yield - The amount of fish that: (1) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (2) is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factors; (3) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the MSY in such fishery.

pdf - Probability Density Function - A description of the probability that a variable takes a specified value.

PFMC - Pacific Fishery Management Council.

SAFE - Stock Assessment and Fishery Evaluation - A document or set of documents that provides Councils with a summary of the most recent biological condition of species in the fishery management unit, and the social and economic condition of the recreational and commercial fishing interests and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible future condition of the stocks and fisheries being managed under Federal regulation.

SAFMC - South Atlantic Fishery Management Council.

Salmon FMP - Pacific Coast Salmon Plan

SARC - Stock Assessment Review Committee.

SEDAR - Southeast Date, Assessment and Review.

SFA - Sustainable Fisheries Act - Amended the Magnuson-Stevens Fishery Conservation and Management Act, on October 11, 1996.

SPR - Spawning Potential Ratio - The number of eggs that could be produced by an average recruit in a fished stock, divided by the number of eggs that could be produced by an average recruit in an unfished stock. SPR can also be expressed as the spawning stock biomass per recruit (SSBR) of a fished stock divided by the SSBR of the stock before it was fished.

SSB - Spawning Stock Biomass - The total weight of the fish in a stock that are old enough to spawn.

SSBR - Spawning Stock Biomass Per Recruit - The spawning stock biomass divided by the number of recruits to the stock, or how much spawning biomass an average recruit would be expected to produce.

SSC - Scientific and Statistical Advisory Committee - A group of scientific and technical people giving advice to a council.

T coho - The average coho life span that would be expected over the long term in the absence of exploitation. The default of T coho is four years, but the SSC may set T coho at another value without an FMP amendment on the basis of the best scientific information.

TRAC - Transboundary Resources Assessment Committee - A committee established in 1998 to peer review assessments of transboundary resources in the Georges Bank area and thus to ensure that the management efforts of both Canada and USA, pursued either independently or cooperatively, are founded on a common understanding of resource status.

WPFMC - Western Pacific Fishery Management Council.

All stocks for which a determination of overfishing or overfished was made in this year's report, are included in this Appendix table There may also be some stocks included that have been assessed, but no status determination could be made.

Appendix 7. Additional Stock Assessment Information for Stocks Contained in Federal Fishery Management Plans.

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Atlantic Sea Scallop	Georges Bank Sea Scallop	2000	2000	Stock Assessment Workshop (SAW)
Atlantic Sea Scallop	Middle Atlantic Sea Scallop	2000	2000	Northeast Fisheries Science Center's update of Stock Assessment Workshop (SAW)
Atlantic Salmon	Atlantic Salmon	1999	1999	Report of the ICES Working Group on North Atlantic Salmon
Northeast Multispecies	Gulf of Maine Cod	2002	2000	Stock Assessment Workshop (SAW)
Northeast Multispecies	Georges Bank Cod	2002	2000	Transboundary Resource Committee
Northeast Multispecies	Gulf of Maine Haddock	2002	1999	Stock Assessment Workshop (SAW)
Northeast Multispecies	Georges Bank Haddock	2002	2000	Transboundary Resource Committee
Northeast Multispecies	American Plaice	2002	1999	Stock Assessment Workshop (SAW)
Northeast Multispecies	Redfish	2002	2000	Stock Assessment Workshop (SAW)
Northeast Multispecies	Witch Flounder	2002	1998	Stock Assessment Workshop (SAW)
Northeast Multispecies	Georges Bank Yellowtail Flounder	2002	2000	Transboundary Resource Committee
Northeast Multispecies	Southern New England Yellowtail Flounder	2002	1997	Stock Assessment Workshop (SAW)
Northeast Multispecies	Cape Cod Yellowtail Flounder	2002	1997	Stock Assessment Workshop (SAW)
Northeast Multispecies	Middle Atlantic Yellowtail Flounder	2002	2001	Stock Assessment Workshop (SAW)
Northeast Multispecies	White Hake	2002	2000	Stock Assessment Workshop (SAW)
Northeast Multispecies	Pollock	2002	1992	Stock Assessment Workshop (SAW)
Northeast Multispecies	Ocean Pout	2002	1995	Stock Assessment Workshop (SAW)
Northeast Multispecies	Atlantic Halibut	2001	2001	Stock Assessment Workshop (SAW)
Northeast Multispecies	Gulf of Maine/Georges Bank Windowpane Flounder	2002	2001	Stock Assessment Workshop (SAW)

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Northeast Multispecies	Southern New England/Middle Atlantic Windowpane Flounder	2002	2001	Stock Assessment Workshop (SAW)
Northeast Multispecies	Gulf of Maine Winter Flounder	2002	1995	Stock Assessment Workshop (SAW)
Northeast Multispecies	Georges Bank Winter Flounder	2002	2000	Stock Assessment Workshop (SAW)
Northeast Multispecies	Southern New England Winter Flounder	2002	1997	Stock Assessment Workshop (SAW)
Northeast Multispecies	Gulf of Maine/Northern Georges Bank Silver Hake	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Northeast Multispecies	Southern Georges Bank/Middle Atlantic Silver Hake	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Northeast Multispecies	Offshore Hake	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Northeast Multispecies	Gulf of Maine/Northern Georges Bank Red Hake	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Northeast Multispecies	Southern Georges Bank/ Middle Atlantic Red Hake	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Atlantic Herring	Atlantic Herring	1998	1997	Stock Assessment Workshop (SAW)
Monkfish	Northern Monkfish	2001	2000	Stock Assessment Workshop (SAW)
Monkfish	Southern Monkfish	2001	2000	Stock Assessment Workshop (SAW)
Spiny Dogfish	Spiny Dogfish	1997	1996	Stock Assessment Workshop (SAW)
Summer Flounder/Scup/Black Sea Bass	Summer Flounder	2002	2001	Stock Assessment Workshop (SAW)
Summer Flounder/Scup/Black Sea Bass	Scup	2002	2001	Stock Assessment Workshop (SAW)
Summer Flounder/Scup/Black Sea Bass	Black Sea Bass	1998	1997	Stock Assessment Workshop (SAW)
Bluefish	Bluefish	1996	1995	Stock Assessment Workshop (SAW)
Surfclam/Ocean Quahog	Surfclam	1999	1999	Stock Assessment Workshop (SAW)
Surfclam/Ocean Quahog	Ocean Quahog	2000	1999	Stock Assessment Workshop (SAW)
Atlantic Mackerel/Squid/Butterfish	Illex Squid	1999	1998	Stock Assessment Workshop (SAW)
Atlantic Mackerel/Squid/Butterfish	Loligo Squid	2001	2000	Stock Assessment Workshop (SAW)
Atlantic Mackerel/Squid/Butterfish	Atlantic Mackerel	1999	1998	Stock Assessment Workshop (SAW)
Atlantic Mackerel/Squid/Butterfish	Butterfish	1993	1993	Stock Assessment Workshop (SAW)
Tilefish	Golden Tilefish	1993	1992	Stock Assessment Workshop (SAW)

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
South Atlantic Golden Crab	Golden Crab	2000	1999	Updated Golden Crab Fishery Trends and Population Model Analysis Based on Trip Report Logbook and Trip Interview Data Collection Programs, PRD-99/00-12 (Harper et al.)
South Atlantic Shrimp	White Shrimp	2002	2002	*March 2002 Shrimp Survey Results, Charleston Harbor* (SC Dept. of Natural Resources) and *Assessment of Georgia's Marine Fishery Resources* (GA Dept. of Natural Resources)
South Atlantic Shrimp	Rock Shrimp	2001	2001	NOAA Fisheries - Office of Science and Technology
South Atlantic Shrimp	Brown Shrimp	2001	2001	NOAA Fisheries - Office of Science and Technology
South Atlantic Shrimp	Pink Shrimp	2001	2001	NOAA Fisheries - Office of Science and Technology
South Atlantic Snapper-Grouper	Vermilion Snapper	1997	1996	Population assessment of the vermilion snapper, Rhomboplites aurorubens, from the southeastern United States (Manooch et al.)
South Atlantic Snapper-Grouper	Red Porgy	2002	2001	Southeast Data, Assessment and Review (SEDAR)
South Atlantic Snapper-Grouper	Gag	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Red Snapper	1997	1996	Population Assessment of the Red Snapper, *Lutjanus campechanus*, from the Southeastern United States (Manooch, III)
South Atlantic Snapper-Grouper	Speckled Hind	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Snowy Grouper	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Warsaw Grouper	2001	1999	Summary of Fishery Data and Population Status of Warsaw Grouper and Speckled Hind Landed in the U.S. South Atlantic (Potts)
South Atlantic Snapper-Grouper	Golden Tilefish	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Yellowtail Snapper	1993	1991	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
South Atlantic Snapper-Grouper	Red Grouper	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Black Grouper	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Black Sea Bass	1996	1996	Population characteristics of the black sea bass *Centropristis striata* from the U.S. southern Atlantic coast (Vaughan, et al.,)
South Atlantic Snapper-Grouper	Goliath Grouper (Jewfish)	no date	no date	Pre-SFA Qualitative Determination***
South Atlantic Snapper-Grouper	Nassau Grouper	no date	no date	Pre-SFA Qualitative Determination***
South Atlantic Snapper-Grouper	Mutton Snapper	1993	1991	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Greater Amberjack	1999	1998	Stock Assessment Analyses on Atlantic Greater Amberjack (Legault and Turner)
South Atlantic Snapper-Grouper	Wreckfish	2002	2001	2001-2002 Wreckfish Annual Report (Hardy)
South Atlantic Snapper-Grouper	Yellowedge Grouper	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Scamp	1997	1996	Population assessment of the scamp, *Mycteroperca phenax*, from the southeastern United States (Manooch, et al.)
South Atlantic Snapper-Grouper	White Grunt	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Gray (Mangrove) Snapper	1993	1991	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
South Atlantic Snapper-Grouper	Lane Snapper	1992	1990	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
South Atlantic Snapper-Grouper	Gray Triggerfish	2001	2000	Trends in Catch Data and Estimated Static SPR Values for Fifteen Species of Reef Fish Landed Along the Southeastern United States (Potts and Brennan)
Atlantic Coast Red Drum	Red Drum	1999	1998	Assessment of Atlantic red drum for 1999: northern and southern regions (Vaughan and Carmichael)
Gulf of Mexico/South Atlantic Spiny Lobster	Spiny Lobster	1997	1997	Spiny Lobster Stock Assessment (State of Florida)
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Gulf Group King Mackerel	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Atlantic Group King Mackerel	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Gulf Group Spanish Mackerel	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Atlantic Group Spanish Mackerel	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Cobia	2001	2000	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Little Tunny	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Bluefish (Gulf only)	2002	2000	2002 Report of the Mackeral Stock Assessment Panel
Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic	Cero Mackerel	2002	2001	2002 Report of the Mackeral Stock Assessment Panel
Gulf of Mexico Stone Crab	Stone Crab	1997	1997	Stone Crab Stock Assessment (State of Florida)
Gulf of Mexico Shrimp	Brown Shrimp	2001	2000	Shrimp Stock Assessment Report
Gulf of Mexico Shrimp	Pink Shrimp	2001	2000	Shrimp Stock Assessment Report
Gulf of Mexico Shrimp	White Shrimp	2001	2000	Shrimp Stock Assessment Report
Gulf of Mexico Shrimp	Royal Red Shrimp	2001	2000	Shrimp Stock Assessment Report
Reef Fish Resources of the Gulf of Mexico	Red Snapper	1999	1998	Status of the Red Snapper in U.S. Waters of the Gulf of Mexico (Schirripa and Legault)
Reef Fish Resources of the Gulf of Mexico	Red Grouper	2001	2001	Status of Red Grouper in United States Waters of the Gulf of Mexico During 1986-2001

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Reef Fish Resources of the Gulf of Mexico	Greater Amberjack	2000	1998	Stock Assessment of Gulf of Mexico Greater Amberjack Using Date Through 1998 (Turner et al.,)
Reef Fish Resources of the Gulf of Mexico	Gag	2001	2001	Status of Gag in the Gulf of Mexico Assessment 3.0 (Turner et al., 2001)
Reef Fish Resources of the Gulf of Mexico	Gray Triggerfish	2001	1998	A Stock Assessment for Gray Triggerfish, Balistes capriscus, in the Gulf of Mexico. Sustainable Fisheries Division Contribution SFD-00/01-124 (Valle et al., 2001)
Reef Fish Resources of the Gulf of Mexico	Vermilion Snapper	2001	1999	Status of the Vermilion Snapper Fishery in the Gulf of Mexico - Assessment 5.0 (Porch and Cass-Calay)
Reef Fish Resources of the Gulf of Mexico	Nassau Grouper	no date	no date	Pre-SFA Qualitative Determination***
Reef Fish Resources of the Gulf of Mexico	Goliath Grouper (Jewfish)	no date	no date	Pre-SFA Qualitative Determination***
Gulf of Mexico Red Drum	Red Drum	2000	1997	Status of the Red Drum Stocks of the Gulf of Mexico (Goodyear)
Caribbean Spiny Lobster	Spiny Lobster	1992	1989	Spiny Lobster FMP
Caribbean Queen Conch	Queen Conch	1996	1994	Queen Conch Resources FMP
Caribbean Reef Fish	Nassau Grouper	1992	1990	Shallow Water Reef Fish Stock Assessment for the U.S Caribbean
Caribbean Reef Fish	Goliath Grouper (Jewfish)	no date	no date	Pre-SFA Qualitative Determination***
	CALIFORNIA CENTRAL VALLEY CHINOOK			
West Coast Salmon	Sacramento River Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Sacramento River Spring (Central Valley Spring - ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Sacramento River Winter (ESA Endangered 1994)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	NORTHERN CALIFORNIA COAST CHINOOK			

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
West Coast Salmon	Eel, Mattole, Mad, and Smith Rivers[11] (Fall and Spring) (Eel, Mattole, and Mad River stocks - (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Klamath River Fall (Klamath and Trinity Rivers)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Klamath River Spring (Klamath and Trinity Rivers)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	OREGON COAST CHINOOK			
West Coast Salmon	Southern Oregon (Aggregate of fall and spring stocks in all streams south of Elk River; Rogue River fall stock is used to indicate relative abundance and ocean contribution rates)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Central and Northern Oregon (Aggregate of fall and spring stocks in all streams from the Elk River to just south of the Columbia River)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	COLUMBIA RIVER BASIN CHINOOK			
West Coast Salmon	North Lewis River Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Lower River Hatchery Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Lower River Hatchery Spring	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Upper Willamette Spring (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Mid-River Bright Hatchery (Fall)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Spring Creek Hatchery (Fall)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Klickitat, Warm Springs, John Day, and Yakima Rivers (Spring)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
West Coast Salmon	Snake River Fall (ESA Threatened 1992)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Snake River Spring / Summer (ESA Threatened 1992)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Upper River Bright (Fall)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Upper River Summer	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Upper River Spring (ESA Endangered 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	WASHINGTON COAST CHINOOK			
West Coast Salmon	Willapa Bay Fall (natural)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Willapa Bay Fall (hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Grays Harbor Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Grays Harbor Spring	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quinault Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Queets Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Queets Spring / Summer	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Hoh Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Hoh Spring/Summer	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quillayute Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quillayute Spring/Summer	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
West Coast Salmon	Hoko Summer/Fall (Western Strait of Juan de Fuca)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	PUGET SOUND CHINOOK			
West Coast Salmon	Eastern Strait of Juan de Fuca Summer/Fall (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Skokomish Summer/Fall (Hood Canal) (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Nooksack Spring (early) (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Skagit Summer/Fall (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Skagit Spring (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Stillaguamish Summer/Fall (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Snohomish Summer/Fall (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Cedar River Summer/Fall (Lake Washington) (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	White River Spring (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Green River Summer / Fall Threatened (1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Nisqually River Summer/Fall (South Puget Sound) (ESA Threatened 1999)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	OREGON PRODUCTION INDEX AREA COHO			
West Coast Salmon	Central California Coast (ESA Threatened 1996)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
West Coast Salmon	Northern California (ESA Threatened 1997)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Oregon Coastal Natural comprised of Southern, South-Central, North-Central, and Northern Oregon stocks. (Northern Stocks - ESA Threatened 1998; Southern Stock - ESA Threatened 1997)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Columbia River Early (Hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Columbia River (Natural)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	WASHINGTON COASTAL COHO			
West Coast Salmon	Willapa Bay (Hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Grays Harbor	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quinault (Hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Queets	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Hoh	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quillayute Fall	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Quillayute Summer (Hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Western Strait of Juan de Fuca (Sekiu, Hoko, Clallam, Pysht, East and West, and Lyre Rivers and miscellaneous streams west of the Elwha River)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	PUGET SOUND COHO			
West Coast Salmon	Eastern Strait of Juan de Fuca (Streams east of Salt Creek through Chimacum Creek)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
West Coast Salmon	Hood Canal	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Skagit	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Stillaguamish	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Snohomish	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	South Puget Sound (Hatchery)	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
	PINK (ODD-NUMBERED YEARS)			
West Coast Salmon	Puget Sound	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
West Coast Salmon	Fraser River	2001	2001	Review of 2001 Ocean Salmon Fisheries/Preseason Report I - Stock Abundance Analysis for 2001 Ocean Salmon Fisheries
Coastal Pelagic Species	Pacific Sardine	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) document
Coastal Pelagic Species	Pacific Mackerel	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) document
Coastal Pelagic Species	Northern Anchovy	1995	1995	Spawning biomass of the northern anchovy in 1995 and status of the coastal pelagic species fishery during 1994 (Jacobson, et al., 1995)
Coastal Pelagic Species	Jack Mackerel	1983	1983	Biology and fishery potential for jack mackerel (*Trachurus symmetricus*) (MacCall and Stauffer, 1983)
WA, OR, CA Groundfish	Shortbelly Rockfish	1989	1988	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	English Sole	1993	1992	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Arrowtooth Flounder	1993	1992	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Splitnose Rockfish	1994	1993	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Longspine Thornyhead	1997	1996	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Chilipepper Rockfish	1998	1998	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Blackgill Rockfish	1998	1997	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Cowcod	1999	1998	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
WA, OR, CA Groundfish	Petrale Sole	1999	1998	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Lingcod	2000	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Pacific Ocean Perch	2000	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Darkblotched Rockfish	2000	1999	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Widow Rockfish	2000	1999	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Bank Rockfish	2000	1999	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Yellowtail Rockfish	2000	1999	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Shortspine Thornyhead	2001	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Dover Sole	2001	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Black Rockfish (North)	1999	1998	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Bocaccio	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Canary Rockfish	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Yelloweye Rockfish	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Pacific Whiting	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Sablefish	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
WA, OR, CA Groundfish	Silvergrey Rockfish	1996	1995	Stock Assessment and Fishery Evaluation (SAFE) Report
Western Pacific Crustaceans	Spiny Lobsters	2001	2000	NOAA Fisheries Administrative Report
Western Pacific Crustaceans	Slipper Lobsters	2001	2000	NOAA Fisheries Administrative Report
Western Pacific Precious Corals	Pink Corals	2002	2001	R. Grigg - *Marine Fisheries Review* (in review)
Western Pacific Precious Corals	Gold Corals	2002	2001	R. Grigg - *Marine Fisheries Review* (in review)
Western Pacific Precious Corals	Bamboo Corals	2002	2001	R. Grigg - *Marine Fisheries Review* (in review)
Western Pacific Precious Corals	Black Corals	2002	2001	R. Grigg - *Marine Fisheries Review* (in review)
Bottomfish and Seamount Groundfish of the Western Pacific	Pelagic Armorhead	2001	1993	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Bottomfish and Seamount Groundfish of the Western Pacific	Seabass - hapuu'upu	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Red Snapper - ehu	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Longtail Snapper - onaga	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Silver mouth Red Snapper - lehi	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Gray Snapper - uku	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Blueline Snapper - taape	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Yellowtail Snapper -yellow tail kalekale	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Pink Snapper - opakapaka	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Yelloweye Snapper -yelloweye opakapaka	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper Pristipomoides seiboldii -kalekale	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Snapper Pristipomoides zonatus -gindai	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Giant Trevally -white ulua	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Black Jack -black ulua	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Thicklip Trevally -pig ulua	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Amberjack -kahala	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Blacktip Grouper	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Lunartail Grouper	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Ambon Emperor	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Bottomfish and Seamount Groundfish of the Western Pacific	Redgill Emperor	2002	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Alfonsin	2001	1993	Stock Assessment and Fishery Evaluation (SAFE) Report
Bottomfish and Seamount Groundfish of the Western Pacific	Raftfish	2001	1993	Stock Assessment and Fishery Evaluation (SAFE) Report
Western Pacific Pelagics	Yellowfin Tuna (Central Western Pacific)	2002	2001	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Yellowfin Tuna (Eastern Tropical Pacific)	2002	2001	IATTC Stock Assessment Report No. 3
Western Pacific Pelagics	Albacore (South Pacific)	2002	2001	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Albacore (North Pacific)	2002	2001	18th North Pacific Albacore Workshop
Western Pacific Pelagics	Skipjack Tuna (Central Western Pacific)	2002	2001	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Skipjack Tuna (Eastern Tropical Pacific)	2002	2001	IATTC Stock Assessment Report No. 3
Western Pacific Pelagics	Bigeye Tuna (Pacific)	2002	2001	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Striped Marlin	2002	2000	IATTC Stock Assessment Report No. 3 (Eastern Pacific only)
Western Pacific Pelagics	Swordfish (Pacific)	2002	2000	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Blue Marlin (Pacific)	2002	1997	15th Standing Committee on Tuna and Billfish
Western Pacific Pelagics	Auxis spp. tuna	2002	2001	WPFMC SAFE Report (Pelagics)
Western Pacific Pelagics	Scomber spp. tuna	2002	2001	WPFMC SAFE Report (Pelagics)
Western Pacific Pelagics	Allothunnus spp. tuna	2002	2001	WPFMC SAFE Report (Pelagics)
Western Pacific Pelagics	Pelagic Sharks	2001	1998	NOAA Fisheries Southwest Fisheries Science Center for blue shark stock assessment
Gulf of Alaska Groundfish	Western/Central Walleye Pollock	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Pacific Cod	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Gulf of Alaska Groundfish	Sablefish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Shortspine Thornyhead	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Arrowtooth Flounder	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Western Pacific Ocean Perch	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Central Pacific Ocean Perch	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Eastern Pacific Ocean Perch	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Northern Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Eastern Walleye Pollock	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Atka Mackerel	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Alaska Plaice	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Butter Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Deepsea Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Dover Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	English Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Flathead Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Greenland Turbot	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Rex Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Northern Rock Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Southern Rock Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Sand Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Starry Flounder	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Yellowfin Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Dusky Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Yelloweye Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Aurora Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Blackgill Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Bocaccio	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Chilipepper	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Gulf of Alaska Groundfish	Darkblotched Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Greenstriped Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Harlequin Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Pygmy Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Redbanded Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Redstripe Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Rougheye Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Sharpchin Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Shortbelly Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Shortraker Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Silvergrey Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Splitnose Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Stripetail Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Vermilion Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Gulf of Alaska Groundfish	Yellowmouth Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Alaska High Seas Salmon	Pink Salmon	2002	2002	Internal Alaska Department of Fish and Game reports
Alaska High Seas Salmon	Sockeye Salmon	2002	2002	Internal Alaska Department of Fish and Game reports
Alaska High Seas Salmon	Chum Salmon	2002	2002	Internal Alaska Department of Fish and Game reports
Alaska High Seas Salmon	Coho Salmon	2002	2002	Internal Alaska Department of Fish and Game reports
Alaska High Seas Salmon	Chinook Salmon	2002	2002	Internal Alaska Department of Fish and Game reports
Bering Sea/Aleutian Islands Groundfish	Eastern Bering Sea Walleye Pollock	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Aleutian Islands Walleye Pollock	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Bogoslof Walleye Pollock	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Pacific Cod	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Yellowfin Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Greenland Turbot	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Arrowtooth Flounder	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Rock Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Bering Sea/Aleutian Islands Groundfish	Flathead Sole	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Eastern Bering Sea Sablefish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Aleutian Islands Sablefish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Pacific Ocean Perch	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Atka Mackerel	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Alaska Plaice	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Squid Berryteuthis Magister	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Squid Onychoteuthis Borealijaponicus	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Longspine Thornyhead	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Shortspine Thornyhead	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands Groundfish	Northern Rockfish	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Pribilof Islands Blue King Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Saint Matthews Island Blue King Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Aleutian Islands Golden King Crab	2000	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Bristol Bay Red King Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Norton Sound Red King Crab	1999	1999	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Pribilof Islands Red King Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Aleutian Islands Red King Crab	2000	2000	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Bering Sea Snow Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Bering Sea Tanner Crab	2001	2001	Stock Assessment and Fishery Evaluation (SAFE) Report
Bering Sea/Aleutian Islands King and Tanner Crabs	Eastern Aleutian Islands Tanner Crab	2000	2000	Stock Assessment and Fishery Evaluation (SAFE) Report

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Alaska Weathervane Scallops	Alaska Scallop	2002	2002	Internal Alaska Department of Fish and Game reports
Atlantic Billfishes	Blue Marlin (North Atlantic)	2000	1999	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Billfishes	White Marlin (North Atlantic)	2000	1999	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Billfishes	Sailfish (West Atlantic)	1997*	1993	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Billfishes	Spearfish (West Atlantic)	1997*	1993	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Bigeye Tuna (Atlantic)	1999	1998	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Albacore (North Atlantic)	2000	1999	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Yellowfin Tuna (West Atlantic)	2000	1999	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Skipjack Tuna (West Atlantic)	1999	2000	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Bluefin Tuna (West Atlantic)	2000	1999	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Swordfish (North Atlantic)	1999	1998	International Commission for the Conservation of Atlantic Tunas (ICCAT) Standing Committee on Research and Statistics
Atlantic Tunas, Swordfish, and Sharks	Sandbar Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Blacktip Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Spinner Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Silky Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Dusky Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Bull Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Bignose Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Narrowtooth Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Galapagos Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)

FMP	Stock	Year of last assessment	Year of last data used in last stock assessment	Source document for stock assessment
Atlantic Tunas, Swordfish, and Sharks	Night Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Caribbean Reef Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Tiger Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Lemon Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Sand Tiger Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Bigeye Sand Tiger Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Nurse Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Scalloped Hammerhead Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Great Hammerhead Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Smooth Hammerhead Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Whale Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Basking Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	White Shark	1998	1997	Report of the Shark Evaluation Workshop (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Atlantic Sharpnose Shark	2002	2000	Stock Assessment of Small Coastal Sharks in the U.S. Atlantic and Gulf of Mexico (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Caribbean Sharpnose Shark	1992**	1991	1993 Fishery Management Plan for Sharks of the Atlantic Ocean (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Finetooth Shark	2002	2000	Stock Assessment of Small Coastal Sharks in the U.S. Atlantic and Gulf of Mexico (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Blacknose Shark	2002	2000	Stock Assessment of Small Coastal Sharks in the U.S. Atlantic and Gulf of Mexico (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Smalltail Shark	1992**	1991	1993 Fishery Management Plan for Sharks of the Atlantic Ocean (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Bonnethead Shark	2002	2000	Stock Assessment of Small Coastal Sharks in the U.S. Atlantic and Gulf of Mexico (NOAA Fisheries)
Atlantic Tunas, Swordfish, and Sharks	Atlantic Angel Shark	1992**	1991	1993 Fishery Management Plan for Sharks of the Atlantic Ocean (NOAA Fisheries)

* An assessment conducted in 2001 could not estimate with confidence fishing mortality or biomass levels for sailfish only or for the sailfish/spearfish complex; therefore, the earlier assessment conducted in 1997 was used to list the status of this stock.

** A new stock assessment was conducted in 2002 on the four primary species in the small coastal shark management unit (Atlantic sharpnose, bonnethead, blacknose, and finetooth sharks); insufficient data precluded assessments for the Caribbean sharpnose, smalltail, and Atlantic angel sharks.

*** This stock has been declared overfished based on observations of a loss of historic spawning aggregations.

All stocks for which a determination of overfishing or overfished was made in this year's report, are included in this Appendix table. There may also be some stocks included that have been assessed, but no status determination could be made.

Appendix 8. Additional Stock Assessment Information for Stocks Not Contained in Federal Fishery Management Plans.

FMP	Stock	Date of last assessment	Date of last data used in last stock assessment	Source document for stock assessment
Non-Federal FMP	American Lobster	2000	1999	ASMFC Lobster FMP Review Team Report
Non-Federal FMP	Northern Shrimp	1997	1996	Stock Assessment Review Committee (SARC)
Non-Federal FMP	Tautog	1999	1998	Stock Assessment Review Committee (SARC)
Non-Federal FMP	Weakfish	1999	1998	ASMFC Weakfish Technical Committee Advisory Report to the ASMFC Weakfish Board
Non-Federal FMP	Pacific Halibut	2001	2001	Assessment of the Pacific halibut stock at the end of 2001 - International Pacific Halibut Commission (IPHC)

All stocks for which a determination of overfishing or overfished was made in this year's report, are included in this Appendix table. There may also be some stocks included that have been assessed, but no status determination could be made.

Appendix 9. Additional Stock Assessment Information for Stocks Contained in Federal Fishery Management Plans Under Development.

FMP	Stock	Date of last assessment	Date of last data used in last stock assessment	Source document for stock assessment
FMP under development	Winter Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Barndoor Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Thorny Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Smooth Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Little Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Clearnose Skate	2000	1998	Stock Assessment Workshop (SAW)
FMP under development	Rosette Skate	2000	1998	Stock Assessment Workshop (SAW)

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