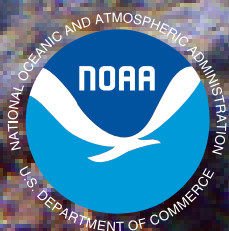
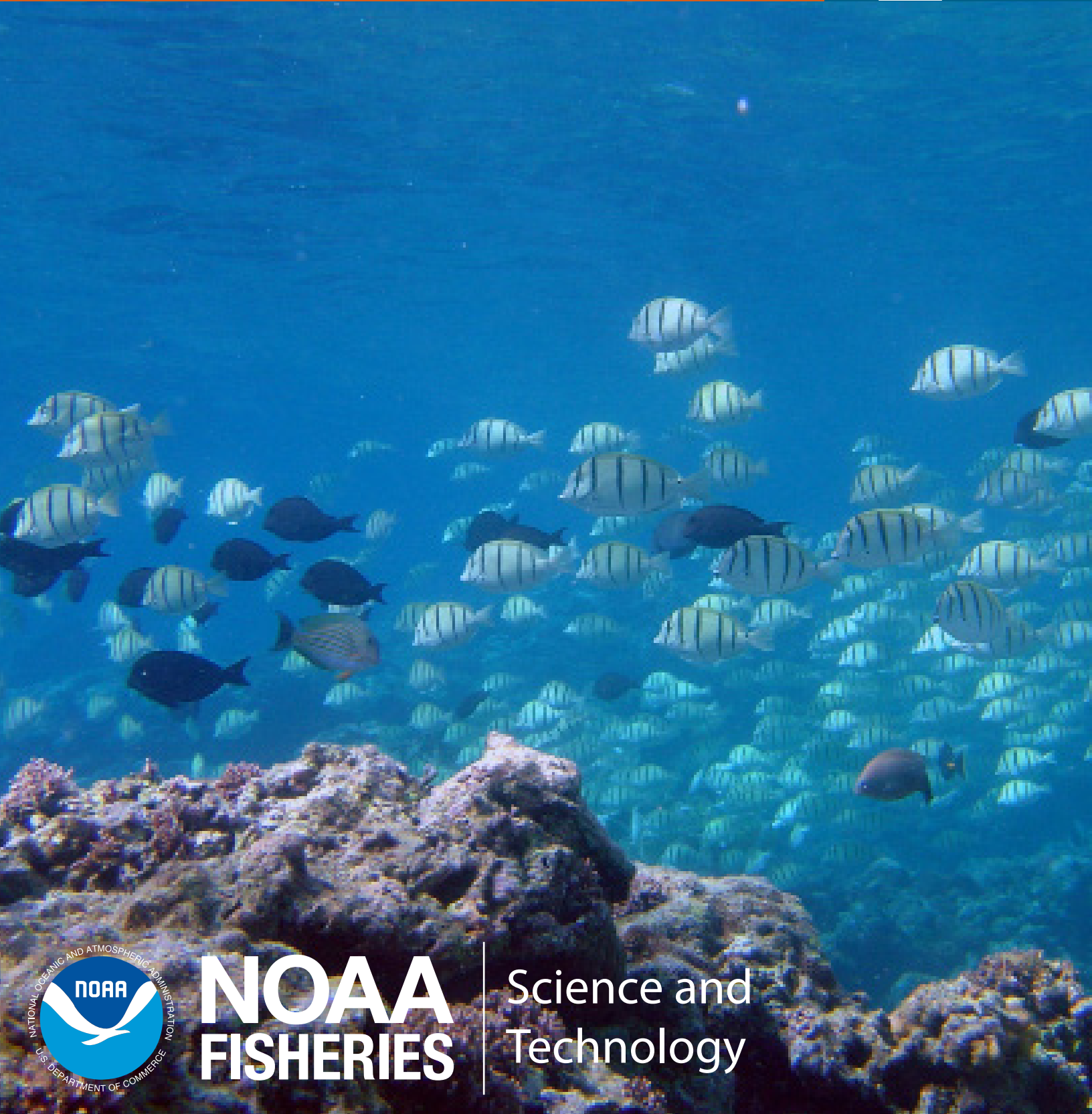


Fish Assessment Report

FY 2016 Quarter 1 Update

1

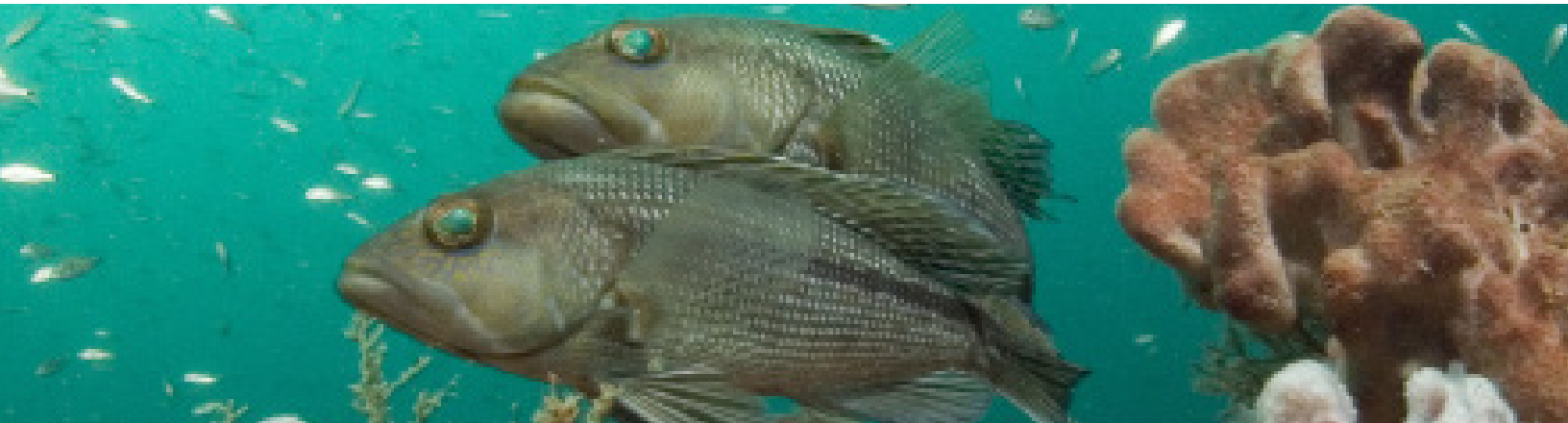


NOAA
FISHERIES

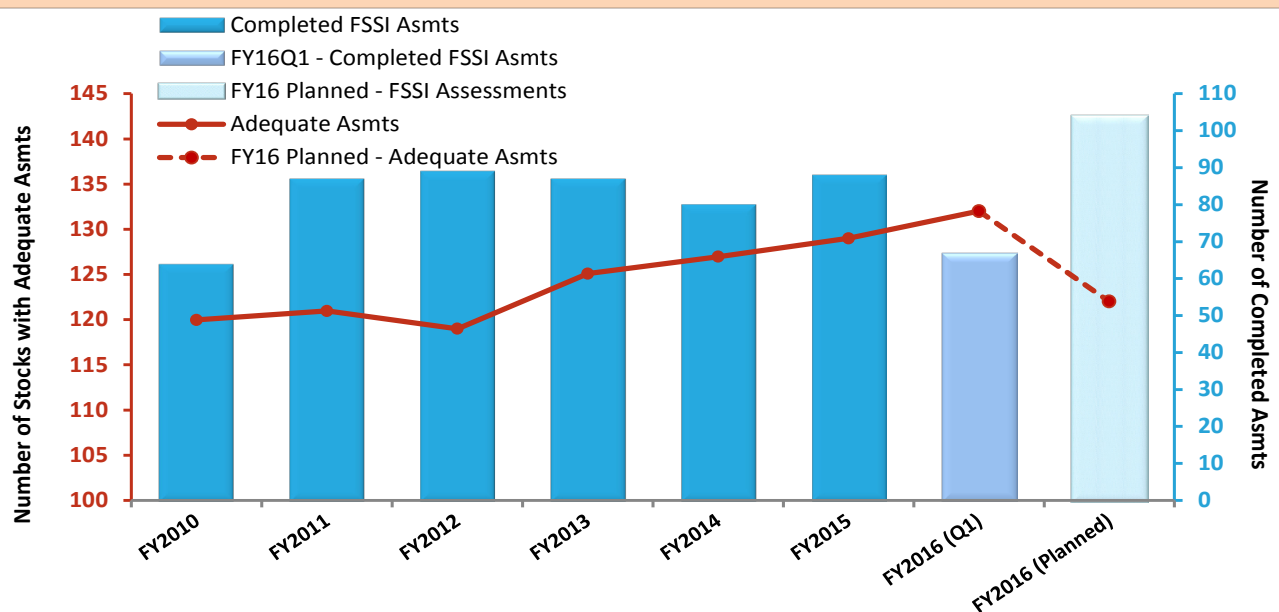
Science and
Technology

Overview

Stock assessments are key to the sustainable management of our Nation's fisheries and provide the best scientific information available to determine the status of fish stocks. They guide the setting of annual catch limits (ACLs) that prevent overfishing and attain optimum yield from our Nation's fisheries. NOAA Fisheries works with its partners in each management area to conduct right-sized assessments for each fish stock or stock complex, selecting assessment level, type, and frequency based on a variety of factors such as fishery importance, ecosystem importance, stock biology, status of the stock, data availability, and assessment capacity. The *Fish Assessment Report* provides a quarterly update on the status of NOAA Fisheries assessment activities for federally managed fish stocks. In FY2016 NOAA Fisheries plans to assess 104 of the 199 stocks included in the Fish Stock Sustainability Index (FSSI), an index used to measure the performance of commercially and recreationally important fisheries. An additional 131 assessments are planned for non-FSSI stocks, many of which are first time assessments and will improve the overall quality of the science provided for fishery management.



NOAA Fisheries Assessment Trends for FSSI Stocks



Recent and projected assessment activity for federally managed stocks included in the Fish Stock Sustainability Index (FSSI). The number of FSSI stocks with adequate assessments reached an all time high at the end of Q1FY2016 (132/199 or 66.3%). This number is anticipated to decrease at the end of FY2016 due to 12 assessments sunsetting (i.e. will be greater than 5 years old) and an increased effort to provide scientific information for many non-FSSI stocks, for which first time assessments will be conducted.

Assessments this Quarter

During Quarter 1, 90 stocks were assessed, including 67 FSSI and 23 non-FSSI stocks.

During Quarter 1, 67 assessments were completed for FSSI stocks and stock complexes. In addition, 23 assessments were completed for non-FSSI stocks and stock complexes bringing the total number of assessments conducted during FY2016 to 90. 145 assessments are planned for the remainder of the year including 37 assessments for FSSI stocks and stock complexes and 108 non-FSSI stocks and stock complexes (see Table 1).

Many of the assessments completed this quarter include annual updates and benchmark assessments for North Pacific groundfish and crab stocks. In addition, full updates (e.g. operational assessments) were completed for 20 New England groundfish stocks. Assessments for two of these stocks, Georges Bank cod and Atlantic halibut, were not accepted by the scientific review process and harvest levels were based on recent average catch.

Full update assessments were also completed this quarter for South Atlantic and Gulf of Mexico shrimp stocks. Benchmark assessments were completed for two Highly Migratory Species (HMS), North Atlantic blue shark and Atlantic bigeye tuna, as well as Pacific coast black rockfish stocks.

Data-limited assessments for the Main Hawaiian Island coral reef fishes were planned to be completed during Quarter 1 and are delayed as researchers incorporate recommendations received during the technical review process to improve the scientific information available for management advice. These 19 assessments will provide stock-specific information not available previously with the combined stocks assessments done previously in this region. They are anticipated to be completed during Q2-FY2016.

At the end of Q1FY2016, the percentage of FSSI stocks with adequate assessments increased to an all-time high of 66.3% (132/199).

Table 1. FY2016 Completed Assessments

Science Center(s)	Quarter 1		Highlighted Stocks for Quarter 1
	FSSI	Non-FSSI	
Northeast	19	0	New England groundfish operational assessments
Southeast	9	1	South Atlantic and Gulf of Mexico shrimp stocks, North Atlantic blue shark and bigeye tuna (HMS)
Northwest and Southwest ¹	2	0	Pacific coast black rockfish stocks
Southwest	0	0	None planned this quarter
Alaska	37	22	AK groundfish, pollock and crab stocks
Pacific Islands	0	0	Main Hawaiian Island coral reef fishes delayed until Q2
Southwest and Pacific Islands ²	0	0	None planned this quarter

Footnotes:

¹ The Northwest and Southwest Fisheries Science Centers jointly conduct assessments for Pacific coast groundfish and Pacific coast salmon.

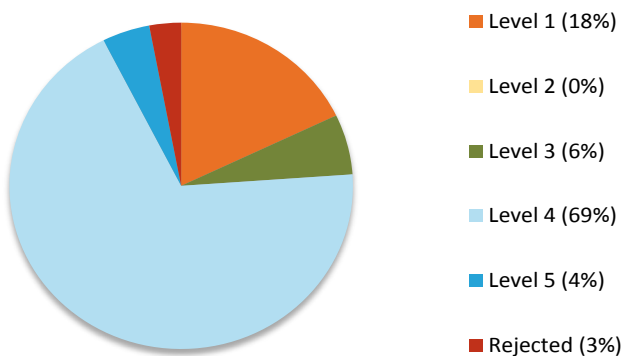
² The Southwest and Pacific Islands Fisheries Science Centers jointly conduct assessments for U.S. West Coast Fisheries for Highly Migratory Species and Pacific Pelagic Fisheries of the Western Pacific Region Ecosystem.

Model Complexity and Assessment Type

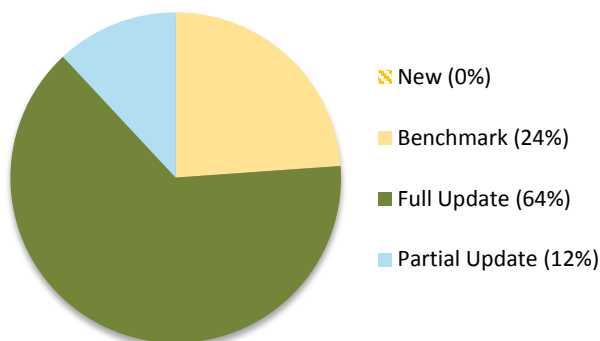
In Q1FY2016, 79% of the assessments conducted for FSSI stocks are considered adequate (level 3 or higher) and a majority of these assessments were conducted as updates rather than benchmark assessments. For non-FSSI stocks, 70% of the assessments conducted during Q1FY2016 were completed at a level 3 or higher. Index-based and simple life history approaches (level 1 and 2) were conducted for 20 stocks (13 FSSI and 7 non-FSSI) providing important science-based advice for the management of data-limited stocks. Ecosystem considerations (level 5) were included in 3 assessments accounting for 3% of all completed assessments during Q1FY2016. Assessment levels and types for all assessments completed during Q1FY2016 are shown in the charts below.

FSSI

Assessment Levels

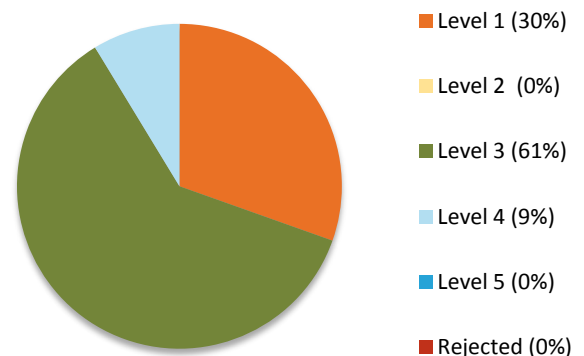


Assessment Types

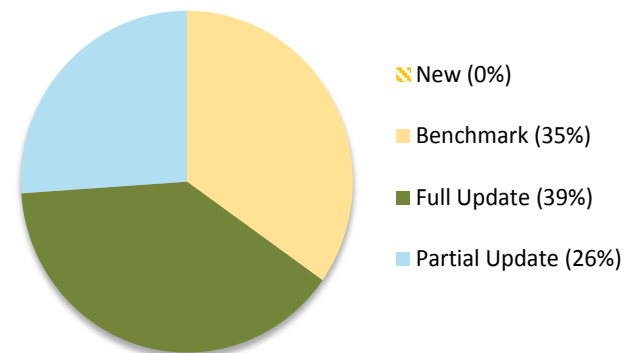


Non-FSSI

Assessment Levels



Assessment Types



Assessment levels are defined as: 1=index only (commercial or research CPUE); 2=simple life history equilibrium models; 3=aggregated production models; 4=size/age/stage-structured models; and 5=models incorporating ecosystem considerations and spatial and seasonal analyses. Assessment types are defined as follows: Benchmarks substantially differ from the previous assessment model structure and may include new data types; Full Updates include most recent year of data and only minor revisions to existing model; and Partial Updates are essentially executive summaries that advance the assessment projections by one year. For details, see the [Marine Fisheries Stock Assessment Improvement Plan](#).

Regional Highlight: Gulf of Mexico

The Gulf of Mexico is home to many commercially- and recreationally-valuable stocks that have increased in abundance over the past two decades (see figure below). The increasing trends in abundance observed across a variety of species and diverse habitats are a result of effective fishery management guided by good stock assessment science, and environmental drivers.

Coastal pelagic species such as Spanish mackerel and king mackerel abundances began to increase in the early-1990s following the implementation of trip and bag limits to end overfishing that had been occurring for almost two decades. Similar successes have been seen for demersal species, such as red grouper, a species that was considered overfished for more than a decade but has increased in stock size since the mid-1990s.

The Gulf's most iconic species, red snapper, is also on an upward trajectory in response to a combination of management efforts such as catch limits, size limits, gear limits, and bycatch reduction efforts. The Gulf's red snapper stock is rebuilding after its egg production decreased to extremely low levels (less than 5% of the egg production estimated for an unfished stock) in the mid-1980s.

While appropriate and responsible management is essential to achieving the recovery of fish populations in the Gulf of Mexico, environmental drivers also play a pivotal role. For example, the red grouper stock was rebuilt to sustainable levels in the early-2000s, but a major red tide event in 2005 caused significant and

unprecedented natural mortality that drove population levels below the biomass limit (Blimit) or the minimum stock size threshold.

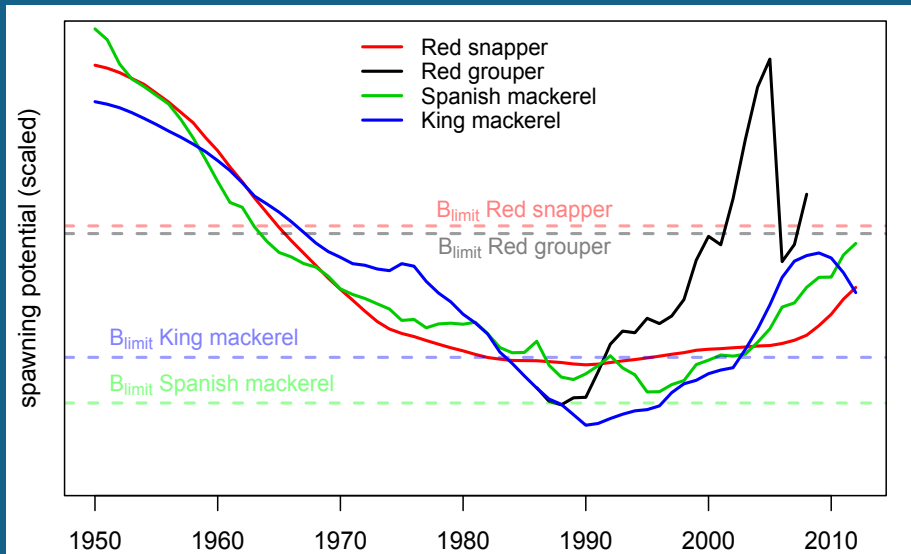


Red grouper, *Epinephelus morio*, in Pulley Ridge, Gulf of Mexico. Photo credit: Don DeMaria, NOAA Ocean Explorer.

Environmental influences can also take more nuanced forms; for example, it was recently recognized that an ecosystem-wide shift occurred in the Gulf of Mexico in 1995, at which point the ecosystem became generally warmer and more hypoxic (lacking oxygenated water). System-level alterations in physical conditions can be a detriment to some species, while other suites of species thrive. Such changes could have aided the mid-1990s recoveries observed in coastal pelagic species, as they can more readily respond to the underlying physical environment via their migratory behavior.

For more information on the science behind the management of fish stocks in the Gulf of Mexico, please visit NOAA Fisheries Southeast Fisheries Science Center's website (<http://www.sefsc.noaa.gov>). For the most up-to-date information on the status of managed stocks and stock assessment results, including trends in abundance, please visit the NOAA Fisheries Species Information System (SIS) Portal (<https://www.st.nmfs.noaa.gov/sisPortal/sisPortalMain.jsp>).

Abundance Trends



Gulf of Mexico fish stocks are showing increasing trends in abundance across a variety of species and diverse habitats. Abundance declined below the minimum stock size threshold (also referred to as the biomass limit or Blimit) for many stocks until early- to mid-1990s and have been increasing over the past two decades as a result of effective fishery management guided by good stock assessment science, and environmental drivers.

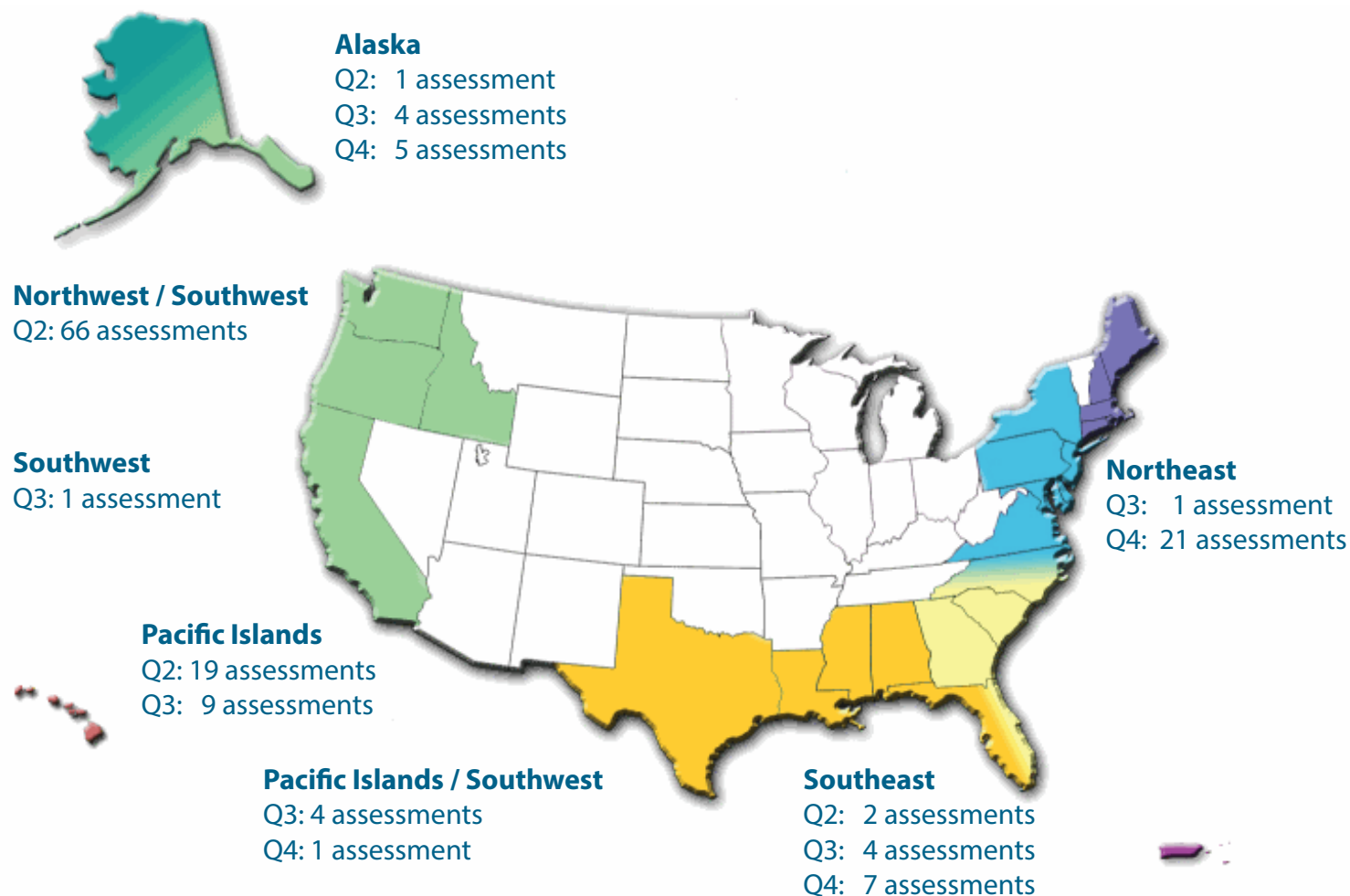
Upcoming Assessments & Survey Activity

During FY2016 NOAA Fisheries plans to complete 104 assessments of FSSI stocks and 131 assessments of non-FSSI stocks, for a total of 235 assessments.

The total number of assessments planned to be completed in each region for the remainder of the year is shown below. Detailed information for the assessments completed during Q1FY2016 and planned for FY2016 can be found in the supporting appendices of this report. Appendix A includes Q1FY2016 completed assessments for FSSI stocks. Appendix B includes Q1FY2016 completed assessments for non-FSSI stocks. Appendix C includes a list of all assessments planned for the remainder of FY2016, including both FSSI and non-FSSI stocks. Appendix D provides the assessment status of FSSI stocks. The information in these appendices represents the best available at the time of reporting and is subject to change.

NOAA Fisheries completed 4 surveys during Q1FY2016 and plans to complete an additional 56 fishery-independent surveys during the remainder of the FY2016. Many surveys span multiple quarters and a majority of the planned surveys are scheduled to be completed during the second half of the fiscal year (April - September). Three surveys will be conducted jointly between the Northwest and Southwest Fisheries Science Centers including the summer juvenile salmon survey, Pacific hake/Pacific sardine survey and the fall juvenile survey. The abundance and biological data collected during the year will go through extensive processing and analysis to become important inputs for future stock assessments.

For more information on assessment activities, including the assessment status for all FSSI stocks, please visit the NOAA Fisheries National Stock Assessment Enterprise website at <http://www.st.nmfs.noaa.gov/stock-assessment/reports>.



Frequently Asked Questions

What is a Stock Assessment?

A stock assessment is the process of collecting, analyzing, and reporting demographic information to determine the effects of fishing (and other drivers) on fish populations and, to the extent possible, predict future catch and stock status.

What Data are Used in Stock Assessments?

Stock assessments are based on models of fish populations that require three primary categories of data inputs: catch, abundance, and biology. Data inputs must be accurate and timely to ensure the highest quality stock assessments and the best information are provided to resource managers. To the extent feasible, ecosystem and environmental factors that affect fish stocks are included.

Why do we Assess Stocks?

NOAA Fisheries' stock assessments provide high-quality science information needed by managers to support sustainable fisheries as components of resilient ecosystems, communities and economies. Assessments provide the scientific basis for determining if a stock is overfished or experiencing overfishing, to calculate a sustainable harvest rate, and to forecast the catch level that would implement that rate.

What is an Adequate Assessment?

Assessments are considered adequate when they use modeling approaches that are able to address long-term population dynamics of the stock (i.e. assessment level of 3 or above according to the 2001 [Marine Fisheries Stock Assessment Improvement Plan](#)), have been updated within five years, and are recommended as best scientific information available after being subjected to regional peer review processes. The definition of an adequate assessment will change as NOAA Fisheries finalizes and implements the new Stock Assessment Improvement Plan (draft expected by the end of FY16).

Why does the Schedule of Planned Assessments Change?

The schedule of planned assessments is provided by each region at the beginning of the fiscal year and updated in this report as new information becomes available. Changes to the schedule may occur as the feasibility and time needed to conduct assessments are refined, particularly for stocks previously unasessed or assessments using innovative methods, and as assessment needs are updated in coordination with our regional and international partners.

Where Can I Find More Information?

<http://www.st.nmfs.noaa.gov/stock-assessment>

<https://www.st.nmfs.noaa.gov/sisPortal/sisPortalMain.jsp>

Appendix A. Assessment activity for stocks and stock complexes included on the FSSI by quarter for FY2016.

Completed Assessments for FSSI Stocks - FY2016 Quarter 1 (October - December, 2015)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type	Adequate	Notes
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	4	Partial Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Bering Sea / Aleutian Islands	5	Partial Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Atka mackerel - Bering Sea / Aleutian Islands	4	Full Update	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Blackspotted and Rougheye Rockfish Complex	4	Partial Update	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Flathead Sole Complex	5	Partial Update	Yes	Flathead sole asmt serves as indicator stock
AFSC	NPFMC	Bering Sea / Aleutian Islands Rock Sole Complex	4	Full Update	Yes	Northern rock sole asmt serves as indicator stock
AFSC	NPFMC	Bering Sea / Aleutian Islands Skate Complex	4	Partial Update	Yes	Two assessments serve as indicators for this stock complex; Alaska skate (level 4) and other skate complex remainder (level 3)
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Flathead sole - Gulf of Alaska	4	Full Update	Yes	
AFSC	NPFMC	Greenland halibut - Bering Sea / Aleutian Islands	4	Benchmark	Yes	
AFSC	NPFMC	Gulf of Alaska Blackspotted and Rougheye Rockfish Complex	4	Benchmark	Yes	
AFSC	NPFMC	Gulf of Alaska Deepwater Flatfish Complex	4	Benchmark	Yes	Two assessments serve as indicators for stock complex: Dover sole (level 4 benchmark and other deepwater flatfish complex remainder (level 1 full update)
AFSC	NPFMC	Gulf of Alaska Demersal Shelf Rockfish Complex	3	Full Update	Yes	Yelloweye rockfish asmt serves as indicator stock

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Completed Assessments for FSSI Stocks - FY2016 Quarter 1 (October - December, 2015)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type	Adequate	Notes
AFSC	NPFMC	Gulf of Alaska Shallow Water Flatfish Complex	4	Benchmark	Yes	Two benchmark assessments serve as indicators for this stock complex: Northern rock sole (level 4), and rock sole (level 4)
AFSC	NPFMC	Gulf of Alaska Thornyhead Rockfish Complex	3	Benchmark	Yes	Shortspine thornyhead asmt serves as indicator stock for stock complex.
AFSC	NPFMC	Northern rockfish - Bering Sea / Aleutian Islands	4	Partial Update	Yes	
AFSC	NPFMC	Northern rockfish - Western / Central Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Pacific cod - Bering Sea	4	Full Update	Yes	
AFSC	NPFMC	Pacific cod - Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	4	Partial Update	Yes	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Rex sole - Gulf of Alaska	4	Benchmark	Yes	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Aleutian Islands	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Western / Central Gulf of Alaska	4	Full Update	Yes	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	5	Full Update	Yes	
AFSC	NPFMC	Blue king crab - Pribilof Islands	1	Full Update	No	
AFSC	NPFMC	Blue king crab - Saint Matthew Island	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Bristol Bay	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Pribilof Islands	1	Full Update	No	
AFSC	NPFMC	Snow crab - Bering Sea	4	Full Update	Yes	
AFSC	NPFMC	Southern tanner crab - Bering Sea	4	Full Update	Yes	
NEFSC	NEFMC	Acadian redfish - Gulf of Maine / Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	American plaice - Gulf of Maine / Georges Bank	4	Full Update	Yes	

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Completed Assessments for FSSI Stocks - FY2016 Quarter 1 (October - December, 2015)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type	Adequate	Notes
NEFSC	NEFMC	Atlantic cod - Georges Bank	-4	Full Update	No	Assessment results were too uncertain to be considered adequate for management.
NEFSC	NEFMC	Atlantic cod - Gulf of Maine	4	Full Update	Yes	
NEFSC	NEFMC	Atlantic halibut - Northwestern Atlantic Coast	-3	Full Update	No	Assessment results were too uncertain to be considered adequate for management.
NEFSC	NEFMC	Atlantic wolffish - Gulf of Maine / Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	Haddock - Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	Haddock - Gulf of Maine	4	Full Update	Yes	
NEFSC	NEFMC	Ocean pout - Northwestern Atlantic Coast	1	Full Update	No	
NEFSC	NEFMC	Pollock - Gulf of Maine / Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	White hake - Gulf of Maine / Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	Windowpane - Gulf of Maine / Georges Bank	1	Full Update	No	
NEFSC	NEFMC	Windowpane - Southern New England / Mid-Atlantic	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Georges Bank	4	Full Update	Yes	
NEFSC	NEFMC	Winter flounder - Gulf of Maine	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Southern New England / Mid-Atlantic	4	Full Update	Yes	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	4	Full Update	Yes	
NEFSC	NEFMC	Yellowtail flounder - Cape Cod / Gulf of Maine	4	Full Update	Yes	
NEFSC	NEFMC	Yellowtail flounder - Southern New England / Mid-Atlantic	4	Benchmark	Yes	
NW/SW	PFMC	Black rockfish - Northern Pacific coast	4	Benchmark	Yes	Black rockfish stocks were assessed using three area models (WA, OR, CA).
NW/SW	PFMC	Black rockfish - Southern Pacific coast	4	Benchmark	Yes	
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	4	Full Update	Yes	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	4	Full Update	Yes	

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Completed Assessments for FSSI Stocks - FY2016 Quarter 1 (October - December, 2015)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type	Adequate	Notes
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	1	Full Update	Yes	
SEFSC	GMFMC	White shrimp - Gulf of Mexico	4	Full Update	Yes	
SEFSC	HMS	Blue shark - North Atlantic	4	Benchmark	Yes	
SEFSC	SAFMC	Brown rock shrimp - Southern Atlantic Coast	1	Full Update	Yes	
SEFSC	SAFMC	Brown shrimp - Southern Atlantic Coast	1	Full Update	Yes	
SEFSC	SAFMC	Pink shrimp - Southern Atlantic Coast	1	Full Update	Yes	
SEFSC	SAFMC	White shrimp - Southern Atlantic Coast	1	Full Update	Yes	

Footnotes

¹NOAA Fisheries Science Centers include Alaska Fisheries Science Center (AFSC), Northeast Fisheries Science Center (NEFSC), Northwest Fisheries Science Center (NWFS), Pacific Islands Fisheries Science Center (PIFSC), Southeast Fisheries Science Center (SEFSC) and Southwest Fisheries Science Center (SWFSC). In some cases, assessments are conducted by multiple science centers (e.g. NW/SW and SW/PI).

²Jurisdictions include Caribbean Fishery Management Council (CFMC), Gulf of Mexico Fishery Management Council (GMFMC), Atlantic Highly Migratory Species Division (HMS), Mid-Atlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), North Pacific Fishery Management Council (NPFMC), Pacific Fishery Management Council (PFMC), South Atlantic Fishery Management Council (SAFMC) and Western Pacific Fishery Management Council (WPFMC).

³Level of complexity of assessment methods used for the particular stock. Generally reflects the availability of data and the value or importance of the fishery. Levels are described in the Stock Assessment Improvement Plan (<http://www.st.nmfs.noaa.gov/StockAssessment/index.html>). A negative level indicates that an assessment was attempted at that level of complexity, but the effort was not accepted in its technical review.

Appendix B. Assessment activity for non-FSSI stocks, stock complexes and complex members in FY2016.

Completed Assessments for Non-FSSI Stocks - FY2016 Quarter 1 (October - December, 2015)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type	Notes on Assessment
AFSC	NPFMC	Atka mackerel - Gulf of Alaska	1	Full Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Octopus Complex	1	Partial Update	Giant octopus - Bering Sea /Aleutian Islands asmt serves as indicator for stock complex
AFSC	NPFMC	Bering Sea / Aleutian Islands Other Flatfish Complex	3	Full Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Other Rockfish Complex	3	Partial Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Sculpin Complex	3	Partial Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Shark Complex	1	Partial Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Squid Complex	1	Full Update	
AFSC	NPFMC	Gulf of Alaska Octopus Complex	1	Benchmark	Giant Octopus Gulf of Alaska asmt serves as indicator for stock complex
AFSC	NPFMC	Gulf of Alaska Other Rockfish Complex	3	Benchmark	
AFSC	NPFMC	Gulf of Alaska Other Shallow Water Flatfish Complex	3	Benchmark	
AFSC	NPFMC	Gulf of Alaska Sculpin Complex	3	Benchmark	
AFSC	NPFMC	Gulf of Alaska Shark Complex	1	Benchmark	
AFSC	NPFMC	Gulf of Alaska - Big skate	3	Full Update	These three assessments are included one Gulf of Alaska Skate Asmt Chapter in the SAFE
AFSC	NPFMC	Gulf of Alaska - Longnose skate	3	Full Update	
AFSC	NPFMC	Gulf of Alaska Other Skate Complex	3	Full Update	
AFSC	NPFMC	Gulf of Alaska Squid Complex	1	Full Update	
AFSC	NPFMC	Kamchatka flounder - Bering Sea / Aleutian Islands	4	Partial Update	
AFSC	NPFMC	Pacific cod - Aleutian Islands	3	Full Update	
AFSC	NPFMC	Shortraker rockfish - Bering Sea / Aleutian Islands	3	Partial Update	
AFSC	NPFMC	Shortraker rockfish - Gulf of Alaska	3	Benchmark	
AFSC	NPFMC	Walleye pollock - Bogoslof	3	Benchmark	
AFSC	NPFMC	Walleye pollock - Southeast Gulf of Alaska	3	Full Update	
SEFSC	HMS	Bigeye tuna - Atlantic	3	Benchmark	

Footnotes

¹ NOAA Fisheries Science Centers include Alaska Fisheries Science Center (AFSC), Northeast Fisheries Science Center (NEFSC), Northwest Fisheries Science Center (NWFSC), Pacific Islands Fisheries Science Center (PIFSC), Southeast Fisheries Science Center (SEFSC) and Southwest Fisheries Science Center (SWFSC). In some cases, assessments are conducted by multiple science centers (e.g. NW/SW and SW/PI).

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Footnotes continued

²Jurisdictions include Caribbean Fishery Management Council (CFMC), Gulf of Mexico Fishery Management Council (GMFMC), Atlantic Highly Migratory Species Division (HMS), Mid-Atlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), North Pacific Fishery Management Council (NPFMC), Pacific Fishery Management Council (PFMC), South Atlantic Fishery Management Council (SAFMC) and Western Pacific Fishery Management Council (WPFMC).

³Level of complexity of assessment methods used for the particular stock. Generally reflects the availability of data and the value or importance of the fishery. Levels are described in the Stock Assessment Improvement Plan (<http://www.st.nmfs.noaa.gov/StockAssessment/index.html>). A negative level indicates that an assessment was attempted at that level of complexity, but the effort was not accepted in its technical review.

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Appendix C. Planned assessments for FSSI and non-FSSI stocks in FY2016 by quarter. Information is best available provided by NOAA Fisheries Science Centers and subject to change.

Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 2 (January - March, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
AFSC	NPFMC	FSSI	Red king crab - Norton Sound	4	Full Update	
NW/SW	PFMC	FSSI	Chinook salmon - California Central Valley: Sacramento (fall)	3	Full Update	
NW/SW	PFMC	FSSI	Chinook salmon - Northern California Coast: Klamath (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - California Central Valley: Sacramento (spring)	1	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - California Central Valley: Sacramento (winter)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Lower River Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Lower River Hatchery (spring)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Mid-River Bright Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: North Lewis (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Snake (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Snake (spring/summer)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Spring Creek Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper River (spring)	4	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Columbia River Basin: Upper River (summer)	4	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Columbia River Basin: Upper River Bright (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper Willamette (spring)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Northern California Coast: Eel, Mattole, and Mad (fall/spring) (<i>California Coastal</i>)	1	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Oregon Coast: Central and Northern	3	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Oregon Coast: Southern	3	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Cedar (summer/fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Eastern Strait of Juan de Fuca (summer/fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Green (summer/fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Mid Hood Canal (summer/fall)	1	Full Update	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 2 (January - March, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Nisqually (summer/fall)	1	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Nooksack (spring early)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Puyallup (summer/fall)	3	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skagit (spring)	3	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skagit (summer/fall)	5	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skokomish (summer/fall)	1	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Snohomish (summer/fall)	5	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Stillaguamish (summer/fall)	5	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Puget Sound: White River (spring)	3	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Grays Harbor (fall)	1	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Grays Harbor (spring)	1	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Hoh (fall)	1	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Hoh (spring/summer)	1	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Hoko (summer/fall)	4	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Queets (fall)	5	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Queets (spring/summer)	2	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Quillayute (fall)	2	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Quillayute (spring/summer)	1	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Quinalt Fall (hatchery)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Willapa Bay Fall (hatchery)	4	Full Update	
NW/SW	PFMC	INT	Chinook salmon - Washington Coast: Willapa Bay Fall (natural)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Central California Coast	1	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Columbia (early hatchery)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Columbia (late hatchery)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Columbia (natural)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Northern California	1	Full Update	

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Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Oregon Coastal (hatchery)	1	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Oregon Coastal (natural)	5	Full Update	
NW/SW	PFMC	INT	Coho salmon - Puget Sound: Hood Canal	4	Full Update	
NW/SW	PFMC	INT	Coho salmon - Puget Sound: Skagit	5	Full Update	
NW/SW	PFMC	INT	Coho salmon - Puget Sound: Snohomish	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Puget Sound: South Puget Sound (hatchery)	4	Full Update	
NW/SW	PFMC	INT	Coho salmon - Puget Sound: Stillaguamish	4	Full Update	
NW/SW	PFMC	INT	Coho salmon - Washington Coast: Grays Harbor	5	Full Update	
NW/SW	PFMC	INT	Coho salmon - Washington Coast: Hoh	5	Full Update	
NW/SW	PFMC	INT	Coho salmon - Washington Coast: Queets	5	Full Update	
NW/SW	PFMC	INT	Coho salmon - Washington Coast: Quillayute (fall)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Washington Coast: Quillayute (summer)	4	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Washington Coast: Quinault	1	Full Update	
NW/SW	PFMC	INT	Coho salmon - Washington Coast: Strait of Juan de Fuca	5	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Washington Coast: Willapa Bay	5	Full Update	
NW/SW	PFMC	Non-FSSI	Coho salmon - Washington Coast: Willapa Bay (natural)	5	Full Update	
NW/SW	PFMC	INT	Pink salmon - Puget Sound (odd-numbered years)	1	Full Update	
NW/SW	PFMC	INT	Pacific hake - Pacific Coast	4	Benchmark	Conducted through Joint U.S. Canadian P. Whiting Agreement
PIFSC	WPFMC	Non-FSSI	Acanthurus blochii (Ringtail surgeonfish)	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Acanthurus dussumieri (Eyestripe surgeonfish)	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Aprion virescens: Green jobfish (Blue-gray snapper)- Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment; delayed from Q1

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 2 (January - March, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
PIFSC	WPFMC	Non-FSSI	Caranx ignobilis - Main Hawaiian Islands Jack	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Caranx melampygus - Main Hawaiian Islands Jack	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Cephalopholis argus - Peacock hind - Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Chlorurus spilurus	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Lutjanus kasmira	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Mulloidichthys flavolineatus	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Mulloidichthys vanicolensis - Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Myripristis berndt	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Naso brevirostris	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Naso hexacanthus	2	New	Coral reef fish stock data poor assessment; delayed from Q1

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 2 (January - March, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
PIFSC	WPFMC	Non-FSSI	Naso lituratus	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Naso unicornis	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Parupeneus porphyreus -Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Scarus psittacus	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Scarus rubroviolaceus	2	New	Coral reef fish stock data poor assessment; delayed from Q1
PIFSC	WPFMC	Non-FSSI	Seriola dumerili	2	New	Coral reef fish stock data poor assessment; delayed from Q1
SEFSC	GMFMC	FSSI	Red grouper - Gulf of Mexico	4	Benchmark	
SEFSC	GMFMC	FSSI	Vermilion snapper - Gulf of Mexico	4	Full Update	

Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 3 (April - June, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
AFSC	NPFMC	FSSI	Golden king crab - Aleutian Islands	1	Full Update	Asmt conducted annually
AFSC	NPFMC	Non-FSSI	Golden king crab - Pribilof Islands	1	Full Update	Asmt conducted annually
AFSC	NPFMC	Non-FSSI	Red king crab - Western Aleutian Islands	1	Full Update	Asmt conducted annually
AFSC	NPFMC	Non-FSSI	Weathervane scallop - Alaska	1	Full Update	
NEFSC	NEFMC	Non-FSSI	Atlantic salmon - Gulf of Maine	3	Full Update	Asmt conducted through ICES and AS committee
SEFSC	SAFMC	FSSI	Gray triggerfish - Southern Atlantic Coast	3 or 4	Benchmark	Delayed from FY2015

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 3 (April - June, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
SEFSC	SAFMC	FSSI	Red snapper - Southern Atlantic Coast	3 or 4	Benchmark	Delayed from FY2015
SEFSC	SAFMC	FSSI	Tilefish - Southern Atlantic Coast	3 or 4	Full Update	
SEFSC	SAFMC / GMFMC	Non-FSSI	Goliath grouper - Southern Atlantic Coast / Gulf of Mexico	3	Benchmark	Asmt led by FI
SW/PI	PFMC / WPFMC	INT	Bigeye tuna - Eastern Pacific	4	Benchmark	IATTC asmt
SW/PI	PFMC / WPFMC	INT	Skipjack tuna - Eastern Pacific	1	Indicator Analysis	IATTC asmt
SW/PI	PFMC / WPFMC	INT	Striped marlin - Eastern Pacific	4	TBD	IATTC is lead
SW/PI	PFMC / WPFMC	INT	Yellowfin tuna - Eastern Pacific	4	Benchmark	IATTC asmt
SWFSC	PFMC	FSSI	Pacific sardine - Pacific Coast	5	Full Update	

Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 4 (July - September, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
AFSC	NPFMC	Non-FSSI	Chinook salmon - Eastern North Pacific Far North Migrating	4	Full Update	
AFSC	NPFMC	Non-FSSI	Coho salmon - Auke Creek	4	Full Update	
AFSC	NPFMC	Non-FSSI	Coho salmon - Berners River	4	Full Update	
AFSC	NPFMC	Non-FSSI	Coho salmon - Ford Arm Lake	4	Full Update	
AFSC	NPFMC	Non-FSSI	Coho salmon - Hugh Smith Lake	4	Full Update	
NEFSC	MAFMC	FSSI	Atlantic surfclam - Mid-Atlantic Coast	4	Benchmark	
NEFSC	MAFMC	FSSI	Butterfish - Gulf of Maine / Cape Hatteras	5	Indicator analysis	
NEFSC	MAFMC	FSSI	Longfin inshore squid - Georges Bank / Cape Hatteras	1	Indicator analysis	
NEFSC	MAFMC	FSSI	Northern shortfin squid - Northwestern Atlantic Coast	2	Indicator analysis	
NEFSC	MAFMC	FSSI	Scup - Atlantic Coast	4	Indicator analysis	
NEFSC	MAFMC	FSSI	Summer flounder - Mid-Atlantic Coast	4	Full Update	
NEFSC	MAFMC	FSSI	Tilefish - Mid-Atlantic Coast	4	Indicator analysis	
NEFSC	NEFMC	FSSI	Atlantic cod - Eastern Georges Bank	4	Full Update	Reviewed through the TRAC process
NEFSC	NEFMC	FSSI	Barndoor skate - Georges Bank / Southern New England	1	Full Update	
NEFSC	NEFMC	FSSI	Clearnose skate - Southern New England / Mid-Atlantic	1	Full Update	
NEFSC	NEFMC	FSSI	Haddock - Eastern Georges Bank	4	Partial Update	Reviewed through the TRAC process
NEFSC	NEFMC	FSSI	Little skate - Georges Bank / Southern New England	1	Full Update	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 4 (July - September, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
NEFSC	NEFMC	FSSI	Rosette skate - Southern New England / Mid-Atlantic	1	Full Update	
NEFSC	NEFMC	FSSI	Sea scallop - Northwestern Atlantic Coast	4	Partial Update	
NEFSC	NEFMC	FSSI	Smooth skate - Gulf of Maine	1	Full Update	
NEFSC	NEFMC	FSSI	Thorny skate - Gulf of Maine	1	Full Update	
NEFSC	NEFMC	FSSI	Winter skate - Georges Bank / Southern New England	1	Full Update	
NEFSC	NEFMC	FSSI	Yellowtail flounder - Georges Bank	0	Indicator Analysis	Reviewed through the TRAC process
NEFSC	NEFMC / MAFMC	FSSI	Goosefish - Gulf of Maine / Northern Georges Bank	4	Benchmark	Asmt is contingent on research progress
NEFSC	NEFMC / MAFMC	FSSI	Goosefish - Southern Georges Bank / Mid-Atlantic	4	Benchmark	Asmt is contingent on research progress
NEFSC	NEFMC / MAFMC	FSSI	Spiny dogfish - Atlantic Coast	4	Full Update	
PIFSC	WPFMC	INT	Blue marlin - Pacific	4	Full Update	ISC is lead for asmt.
PIFSC	WPFMC	Non-FSSI	Caranx orthogrammus	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Lutjanus fulvus	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Monotaxis grandoculis	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Mulloidichthys pflugeri - Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Parupeneus cyclostomus -Main Hawaiian Islands	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Parupeneus insularis	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Stock to be determined	2	New	Coral reef fish stock data poor assessment
PIFSC	WPFMC	Non-FSSI	Scomberoides lysan- Doublespotted queenfish	2	New	Coral reef fish stock data poor assessment
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St Croix	2	Benchmark	
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St Thomas	2	Benchmark	
SEFSC	CFMC	FSSI	Caribbean Parrotfishes Complex (spotlight parrotfish -- St. Croix)	2	Benchmark	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY2016 Quarter 4 (July - September, 2016)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Planned Asmt Level ⁴	Planned Asmt Type	Notes
SEFSC	CFMC	FSSI	Caribbean snappers (yellowtail snapper - Puerto Rico)	2	Benchmark	
SEFSC	CFMC	FSSI	St. Thomas/St. John Triggerfishes and Filefishes Complex (St. Thomas / St. John Queen Triggerfish)	2	New	
SEFSC	CFMC	Non-FSSI	Puerto Rico Wrasses Complex (Hogfish -Puerto Rico)	2	New	
SEFSC	HMS	FSSI	Dusky shark - Atlantic and Gulf of Mexico	4	Full Update	
SW/PI	PFMC / WPFMC	INT	Pacific bluefin tuna - Pacific	4	Benchmark	ISC asmt

Footnotes

¹ NOAA Fisheries Science Centers include Alaska Fisheries Science Center (AFSC), Northeast Fisheries Science Center (NEFSC), Northwest Fisheries Science Center (NWFSC), Pacific Islands Fisheries Science Center (PIFSC), Southeast Fisheries Science Center (SEFSC) and Southwest Fisheries Science Center (SWFSC). In some cases, assessments are conducted by multiple science centers (e.g. NW/SW and SW/PI).

² Jurisdictions include Caribbean Fishery Management Council (CFMC), Gulf of Mexico Fishery Management Council (GMFMC), Atlantic Highly Migratory Species Division (HMS), Mid-Atlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), North Pacific Fishery Management Council (NPFMC), Pacific Fishery Management Council (PFMC), South Atlantic Fishery Management Council (SAFMC) and Western Pacific Fishery Management Council (WPFMC).

³ FSSI refers to federally managed stocks and stock complexes included on the Fish Stock Sustainability Index. Non-FSSI refers to federally managed stocks and stock complexes not included on the Fish Stock Sustainability Index. INT refers to international stocks.

⁴ Level of complexity of assessment methods used for the particular stock. Generally reflects the availability of data and the value or importance of the fishery. Levels are described in the Stock Assessment Improvement Plan (<http://www.st.nmfs.noaa.gov/StockAssessment/index.html>). A negative level indicates that an assessment was attempted at that level of complexity, but the effort was not accepted in its technical review.

Appendix D. Assessment status for FSSI stocks and stock complexes at the end of Q1 FY2016. Changes in assessment information relative to the previous fish assessment quarterly report are highlighted with red text. For more information, please see the Species Information System Public Portal at www.st.nmfs.noaa.gov/sisPortal/.

Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Arrowtooth flounder - Bering Sea / Aleutian Islands	2015	5	Yes	
AFSC	NPFMC	Arrowtooth flounder - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Atka mackerel - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Blackspotted and Roughey Rockfish Complex	2015	4	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Flathead Sole Complex	2015	5	Yes	The assessment is for the Flathead Sole Complex indicator stock, flathead sole.
AFSC	NPFMC	Bering Sea / Aleutian Islands Rock Sole Complex	2015	4	Yes	The assessment listed is for the Rock Sole Complex indicator stock, Northern rock sole.
AFSC	NPFMC	Bering Sea / Aleutian Islands Skate Complex	2015	4	Yes	The assessment is for the Bering Sea / Aleutian Islands Skate Complex indicator stock, Alaska skate.
AFSC	NPFMC	Blue king crab - Pribilof Islands	2015	1	No	
AFSC	NPFMC	Blue king crab - Saint Matthew Island	2015	4	Yes	
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Flathead sole - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Golden king crab - Aleutian Islands	2015	1	No	
AFSC	NPFMC	Greenland halibut - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Gulf of Alaska Blackspotted and Roughey Rockfish Complex	2015	4	Yes	
AFSC	NPFMC	Gulf of Alaska Deepwater Flatfish Complex	2015	4	Yes	The assessment is for Deepwater Flatfish Complex indicator stock, Dover sole.
AFSC	NPFMC	Gulf of Alaska Demersal Shelf Rockfish Complex	2015	3	Yes	The assessment is for Demersal Shelf Rockfish Complex indicator stock, yelloweye rockfish.
AFSC	NPFMC	Gulf of Alaska Shallow Water Flatfish Complex	2015	4	Yes	The assessment is for Gulf of Alaska Shallow Water Flatfish Complex indicator stocks, rock sole and Northern rock sole.

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
AFSC	NPFMC	Gulf of Alaska Thornyhead Rockfish Complex	2015	3	Yes	The assessment is for the Thornyhead Rockfish Complex indicator stock, shortspine thornyhead.
AFSC	NPFMC	Northern rockfish - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Northern rockfish - Western / Central Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Pacific cod - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Pacific cod - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Red king crab - Bristol Bay	2015	4	Yes	
AFSC	NPFMC	Red king crab - Norton Sound	2015	4	Yes	
AFSC	NPFMC	Red king crab - Pribilof Islands	2015	1	No	
AFSC	NPFMC	Rex sole - Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Snow crab - Bering Sea	2015	4	Yes	
AFSC	NPFMC	Southern Tanner crab - Bering Sea	2015	4	Yes	
AFSC	NPFMC	Walleye pollock - Aleutian Islands	2015	4	Yes	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	2015	4	Yes	
AFSC	NPFMC	Walleye pollock - Western / Central / West Yakutat Gulf of Alaska	2015	4	Yes	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	2015	5	Yes	
NEFSC	MAFMC	Atlantic mackerel - Gulf of Maine / Cape Hatteras	2015	4	No	
NEFSC	MAFMC	Atlantic surfclam - Mid-Atlantic Coast	2015	4	Yes	
NEFSC	MAFMC	Black sea bass - Mid-Atlantic Coast	2015	4	Yes	
NEFSC	MAFMC	Bluefish - Atlantic Coast	2015	4	Yes	
NEFSC	MAFMC	Butterfish - Gulf of Maine / Cape Hatteras	2015	5	Yes	
NEFSC	MAFMC	Longfin inshore squid - Georges Bank / Cape Hatteras	2015	1	No	
NEFSC	MAFMC	Northern shortfin squid - Northwestern Atlantic Coast	2015	2	No	
NEFSC	MAFMC	Ocean quahog - Atlantic Coast	2013	4	Yes	
NEFSC	MAFMC	Scup - Atlantic Coast	2015	4	Yes	
NEFSC	MAFMC	Summer flounder - Mid-Atlantic Coast	2015	4	Yes	
NEFSC	MAFMC	Tilefish - Mid-Atlantic Coast	2015	4	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
NEFSC	NEFMC	Acadian redfish - Gulf of Maine / Georges Bank	2015	4	Yes	
NEFSC	NEFMC	American plaice - Gulf of Maine / Georges Bank	2015	4	Yes	
NEFSC	NEFMC	Atlantic cod - Georges Bank	2015	-4	See note	Asmts conducted on Eastern Georges Bank substock (4) and Georges Bank (-4). Previous asmt for Georges Bank still considered adequate.
NEFSC	NEFMC	Atlantic cod - Gulf of Maine	2015	4	Yes	
NEFSC	NEFMC	Atlantic halibut - Northwestern Atlantic Coast	2015	-3	See note	Previous asmt for Atlantic halibut still considered adequate.
NEFSC	NEFMC	Atlantic herring - Northwestern Atlantic Coast	2015	5	Yes	
NEFSC	NEFMC	Atlantic wolffish - Gulf of Maine / Georges Bank	2012	4	Yes	
NEFSC	NEFMC	Barndoor skate - Georges Bank / Southern New England	2015	1	No	
NEFSC	NEFMC	Clearnose skate - Southern New England / Mid-Atlantic	2015	1	No	
NEFSC	NEFMC	Haddock - Georges Bank	2015	4	Yes	Asmt conducted on Eastern Georges Bank substock
NEFSC	NEFMC	Haddock - Gulf of Maine	2014	4	Yes	
NEFSC	NEFMC	Little skate - Georges Bank / Southern New England	2015	1	No	
NEFSC	NEFMC	Ocean pout - Northwestern Atlantic Coast	2015	1	No	
NEFSC	NEFMC	Offshore hake - Northwestern Atlantic Coast	2011	-1	No	
NEFSC	NEFMC	Pollock - Gulf of Maine / Georges Bank	2015	4	Yes	
NEFSC	NEFMC	Red deepsea crab - Northwestern Atlantic	2008	1	No	
NEFSC	NEFMC	Red hake - Gulf of Maine / Northern Georges Bank	2015	1	No	
NEFSC	NEFMC	Red hake - Southern Georges Bank / Mid-Atlantic	2015	1	No	
NEFSC	NEFMC	Rosette skate - Southern New England / Mid-Atlantic	2015	1	No	
NEFSC	NEFMC	Sea scallop - Northwestern Atlantic Coast	2015	4	Yes	
NEFSC	NEFMC	Silver hake - Gulf of Maine / Northern Georges Bank	2014	1	No	
NEFSC	NEFMC	Silver hake - Southern Georges Bank / Mid-Atlantic	2014	1	No	
NEFSC	NEFMC	Smooth skate - Gulf of Maine	2015	1	No	
NEFSC	NEFMC	Thorny skate - Gulf of Maine	2015	1	No	
NEFSC	NEFMC	White hake - Gulf of Maine / Georges Bank	2015	4	Yes	
NEFSC	NEFMC	Windowpane - Gulf of Maine / Georges Bank	2015	1	No	
NEFSC	NEFMC	Windowpane - Southern New England / Mid-Atlantic	2015	1	No	
NEFSC	NEFMC	Winter flounder - Georges Bank	2015	4	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
NEFSC	NEFMC	Winter flounder - Gulf of Maine	2015	1	No	
NEFSC	NEFMC	Winter flounder - Southern New England / Mid-Atlantic	2015	4	Yes	
NEFSC	NEFMC	Winter skate - Georges Bank / Southern New England	2015	1	No	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	2015	4	Yes	
NEFSC	NEFMC	Yellowtail flounder - Cape Cod / Gulf of Maine	2015	4	Yes	
NEFSC	NEFMC	Yellowtail flounder - Georges Bank	2015	1	No	
NEFSC	NEFMC	Yellowtail flounder - Southern New England / Mid-Atlantic	2015	4	Yes	
NEFSC	NEFMC/MAFMC	Goosefish - Gulf of Maine / Northern Georges Bank	2013	4	Yes	
NEFSC	NEFMC/MAFMC	Goosefish - Southern Georges Bank / Mid-Atlantic	2013	4	Yes	
NEFSC	NEFMC/MAFMC	Spiny dogfish - Atlantic Coast	2014	4	Yes	
NWFSC/SWFSC	PPMC	Arrowtooth flounder - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Black rockfish - Northern Pacific Coast	2015	4	No	Benchmark asmt scheduled for FY15 delayed to Q1FY16
NWFSC/SWFSC	PPMC	Black rockfish - Southern Pacific Coast	2015	4	No	Benchmark asmt scheduled for FY15 delayed to Q1FY16
NWFSC/SWFSC	PPMC	Blackgill rockfish - Southern California	2011	4	Yes	
NWFSC/SWFSC	PPMC	Blue rockfish - California	2007	4	No	
NWFSC/SWFSC	PPMC	Bocaccio - Southern Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Brown rockfish - Pacific Coast	2013	3	Yes	
NWFSC/SWFSC	PPMC	Cabazon - California	2009	4	No	
NWFSC/SWFSC	PPMC	California scorpionfish - Southern California	2005	4	No	
NWFSC/SWFSC	PPMC	Canary rockfish - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Chilipepper - Southern Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Chinook salmon - Klamath River Fall	2015	4	Yes	
NWFSC/SWFSC	PPMC	Chinook salmon - Sacramento River Fall	2015	3	Yes	
NWFSC/SWFSC	PPMC	Cowcod - Southern California	2013	3	Yes	
NWFSC/SWFSC	PPMC	Darkblotched rockfish - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Dover sole - Pacific Coast	2011	4	Yes	
NWFSC/SWFSC	PPMC	English sole - Pacific Coast	2013	3	Yes	
NWFSC/SWFSC	PPMC	Gopher rockfish - Northern California	2005	4	No	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
NWFSC/SWFSC	PPMC	Greenspotted rockfish - Pacific Coast	2011	3	Yes	
NWFSC/SWFSC	PPMC	Greenstriped rockfish - Pacific Coast	2009	4	No	
NWFSC/SWFSC	PPMC	Kelp greenling - Oregon	2015	4	Yes	
NWFSC/SWFSC	PPMC	Lingcod - Pacific Coast	2009	4	No	
NWFSC/SWFSC	PPMC	Longnose skate - Pacific Coast	2007	4	No	
NWFSC/SWFSC	PPMC	Longspine thornyhead - Pacific Coast	2013	3	Yes	
NWFSC/SWFSC	PPMC	Pacific ocean perch - Pacific Coast	2011	4	Yes	
NWFSC/SWFSC	PPMC	Pacific sanddab - Pacific Coast	2013	4	Yes	
NWFSC/SWFSC	PPMC	Petrale sole - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Rex sole - Pacific Coast	2013	3	Yes	
NWFSC/SWFSC	PPMC	Rougheye rockfish - Pacific Coast	2013	4	Yes	
NWFSC/SWFSC	PPMC	Sablefish - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Shortbelly rockfish - Pacific Coast	2007	4	No	
NWFSC/SWFSC	PPMC	Shortspine thornyhead - Pacific Coast	2013	3	Yes	
NWFSC/SWFSC	PPMC	Spiny dogfish - Pacific Coast	2011	4	Yes	
NWFSC/SWFSC	PPMC	Splitnose rockfish - Pacific Coast	2009	4	No	
NWFSC/SWFSC	PPMC	Starry flounder - Pacific Coast	2005	4	No	
NWFSC/SWFSC	PPMC	Vermilion rockfish - California	2005	-4	No	
NWFSC/SWFSC	PPMC	Widow rockfish - Pacific Coast	2015	4	Yes	
NWFSC/SWFSC	PPMC	Yelloweye rockfish - Pacific Coast	2011	4	Yes	
NWFSC/SWFSC	PPMC	Yellowtail rockfish - Northern Pacific Coast	2013	3	Yes	
PIFSC	WPFMC	American Samoa Bottomfish Multi-species Complex	2015	3	Yes	
PIFSC	WPFMC	Guam Bottomfish Multi-species Complex	2015	3	Yes	
PIFSC	WPFMC	Main Hawaiian Islands Deep Bottomfish Multi-species Complex	2015	-3	No	The 2015 assessment was not accepted as the best scientific information available for use by management, however, 2011 assessment is still considered adequate.
PIFSC	WPFMC	Northern Mariana Islands Bottomfish Multi-species Complex	2015	3	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
SEFSC	CFMC	Caribbean Groupers	2014	1	No	Assessment of complex component red hind
SEFSC	CFMC	Caribbean Parrotfish Complex	NA		No	
SEFSC	CFMC	Caribbean Snappers	2012	2	No	Assessment of complex component silk snapper
SEFSC	CFMC	Caribbean spiny lobster - Puerto Rico	2009	2	No	Basin-wide assessment of Caribbean spiny lobster.
SEFSC	CFMC	Caribbean spiny lobster - St. Croix	2009	2	No	Basin-wide assessment of Caribbean spiny lobster.
SEFSC	CFMC	Caribbean spiny lobster - St. Thomas/St. John	2009	2	No	Basin-wide assessment of Caribbean spiny lobster.
SEFSC	CFMC	Queen conch - Caribbean	2009	2	No	
SEFSC	CFMC	Triggerfish and Filefish Complex - Puerto Rico	2013	-1	No	Assessment of queen triggerfish in the Caribbean
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Croix	2013	-1	No	Assessment of queen triggerfish in the Caribbean
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Thomas/St. John	2013	-1	No	Assessment of queen triggerfish in the Caribbean
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	2015	4	Yes	
SEFSC	GMFMC	Gag - Gulf of Mexico	2014	4	Yes	
SEFSC	GMFMC	Gray triggerfish - Gulf of Mexico	2015	4	Yes	
SEFSC	GMFMC	Greater amberjack - Gulf of Mexico	2014	4	Yes	
SEFSC	GMFMC	Hogfish - Eastern Gulf of Mexico	2014	4	Yes	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	2015	4	Yes	
SEFSC	GMFMC	Red grouper - Gulf of Mexico	2009	4	No	FY15 asmt delayed until FY16.
SEFSC	GMFMC	Red snapper - Gulf of Mexico	2015	4	Yes	
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	2015	1	No	
SEFSC	GMFMC	Tilefish - Gulf of Mexico	2011	4	Yes	
SEFSC	GMFMC	Vermilion snapper - Gulf of Mexico	2011	4	Yes	
SEFSC	GMFMC	White shrimp - Gulf of Mexico	2015	4	Yes	
SEFSC	GMFMC	Yellowedge grouper - Gulf of Mexico	2010	4	Yes	
SEFSC	HMS	Atlantic sharpnose shark - Atlantic	2013	4	Yes	
SEFSC	HMS	Atlantic sharpnose shark - Gulf of Mexico	2013	4	Yes	
SEFSC	HMS	Blacknose shark - Atlantic	2011	4	Yes	
SEFSC	HMS	Blacknose shark - Gulf of Mexico	2011	4	Yes	
SEFSC	HMS	Blacktip shark - Atlantic	2006	-4	No	
SEFSC	HMS	Blacktip shark - Gulf of Mexico	2012	4	Yes	
SEFSC	HMS	Blue shark - Atlantic	2015	4	No	
SEFSC	HMS	Bonnethead - Atlantic	2013	-4	No	
SEFSC	HMS	Bonnethead - Gulf of Mexico	2013	-4	No	
SEFSC	HMS	Dusky shark - Atlantic	2011	4	Yes	
SEFSC	HMS	Finetooth shark - Atlantic	2007	3	No	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
SEFSC	HMS	Porbeagle - Atlantic	2009	4	No	Asmt sunset at end of FY15
SEFSC	HMS	Sandbar shark - Atlantic	2011	4	Yes	
SEFSC	HMS	Scalloped Hammerhead Complex - Atlantic	2009	3	No	Asmt sunset at end of FY15
SEFSC	HMS	Shortfin mako - Atlantic	2012	4	Yes	
SEFSC	SAFMC	Black grouper - Southern Atlantic Coast	2010	4	No	Asmt sunset at end of FY15
SEFSC	SAFMC	Black sea bass - Southern Atlantic Coast	2013	4	Yes	
SEFSC	SAFMC	Blueline tilefish - Southern Atlantic Coast	2013	4	Yes	
SEFSC	SAFMC	Brown rock shrimp - Southern Atlantic Coast	2015	1	No	
SEFSC	SAFMC	Brown shrimp - Southern Atlantic Coast	2015	1	No	
SEFSC	SAFMC	Dolphinfish - Southern Atlantic Coast	2000	2	No	
SEFSC	SAFMC	Gag - Southern Atlantic Coast	2014	4	Yes	
SEFSC	SAFMC	Gray triggerfish - Southern Atlantic Coast	2001	-2	No	Benchmark planned for FY2015 rescheduled for Q4FY2016
SEFSC	SAFMC	Greater amberjack - Southern Atlantic Coast	2008	4	No	
SEFSC	SAFMC	Hogfish - Southeast Florida	2014	4	Yes	
SEFSC	SAFMC	Pink shrimp - Southern Atlantic Coast	2014	1	No	
SEFSC	SAFMC	Red grouper - Southern Atlantic Coast	2010	4	No	Asmt sunset at end of FY15. Next asmt has been rescheduled for FY2017
SEFSC	SAFMC	Red porgy - Southern Atlantic Coast	2012	4	Yes	
SEFSC	SAFMC	Red snapper - Southern Atlantic Coast	2010	4	Yes	Planned FY15 asmt delayed until FY16
SEFSC	SAFMC	Snowy grouper - Southern Atlantic Coast	2014	4	Yes	
SEFSC	SAFMC	Speckled hind - Southern Atlantic Coast	2001	2	No	
SEFSC	SAFMC	Tilefish - Southern Atlantic Coast	2011	4	Yes	
SEFSC	SAFMC	Vermilion snapper - Southern Atlantic Coast	2012	4	Yes	
SEFSC	SAFMC	Warsaw grouper - Southern Atlantic Coast	2001	2	No	
SEFSC	SAFMC	White shrimp - Southern Atlantic Coast	2015	1	No	
SEFSC	SAFMC/GMFMFC	Caribbean spiny lobster - Southern Atlantic Coast / Gulf of Mexico	2010	-4	No	
SEFSC	SAFMC/GMFMFC	Cobia - Gulf of Mexico	2013	4	Yes	
SEFSC	SAFMC/GMFMFC	Cobia - Southern Atlantic Coast	2013	4	Yes	
SEFSC	SAFMC/GMFMFC	King mackerel - Gulf of Mexico	2014	4	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment			Assessment Notes
			Year	Level ³	Adequate?	
SEFSC	SAFMC/GMFMC	King mackerel - Southern Atlantic Coast	2014	4	Yes	
SEFSC	SAFMC/GMFMC	Mutton snapper - Southern Atlantic Coast / Gulf of Mexico	2015	4	Yes	
SEFSC	SAFMC/GMFMC	Spanish mackerel - Gulf of Mexico	2013	4	Yes	
SEFSC	SAFMC/GMFMC	Spanish mackerel - Southern Atlantic Coast	2013	4	Yes	
SEFSC	SAFMC/GMFMC	Yellowtail snapper - Southern Atlantic Coast / Gulf of Mexico	2012	4	Yes	
SWFSC	PFMC	Northern anchovy - Southern Pacific Coast	1995	0	No	
SWFSC	PFMC	Opalescent inshore squid - Pacific Coast	2006	2	No	
SWFSC	PFMC	Pacific chub mackerel - Pacific Coast	2015	4	Yes	
SWFSC	PFMC	Pacific sardine - Pacific Coast	2015	5	Yes	

Footnotes

¹ NOAA Fisheries Science Centers include Alaska Fisheries Science Center (AFSC), Northeast Fisheries Science Center (NEFSC), Northwest Fisheries Science Center (NWFSC), Pacific Islands Fisheries Science Center (PIFSC), Southeast Fisheries Science Center (SEFSC) and Southwest Fisheries Science Center (SWFSC). In some cases, assessments are conducted by multiple science centers (e.g. NW/SW and SW/PI).

² Jurisdictions include Caribbean Fishery Management Council (CFMC), Gulf of Mexico Fishery Management Council (GMFMC), Atlantic Highly Migratory Species Division (HMS), Mid-Atlantic Fishery Management Council (MAFMC), New England Fishery Management Council (NEFMC), North Pacific Fishery Management Council (NPFMC), Pacific Fishery Management Council (PFMC), South Atlantic Fishery Management Council (SAFMC) and Western Pacific Fishery Management Council (WPFMC).

³ Level of complexity of assessment methods used for the particular stock. Generally reflects the availability of data and the value or importance of the fishery. Levels are described in the Stock Assessment Improvement Plan <http://www.st.nmfs.noaa.gov/StockAssessment/index.html>). A negative level indicates that an assessment was attempted at that level of complexity, but the effort was not accepted in its technical review.



Office of Science and Technology
NOAA Fisheries
1315 East West Highway
Silver Spring, Maryland 20910

Phone: (301) 427-8100
Fax: (301) 713-1875
E-mail: Stacey.Miller@noaa.gov