# Fish Assessment Report

FY 2017 Quarter 2 Update



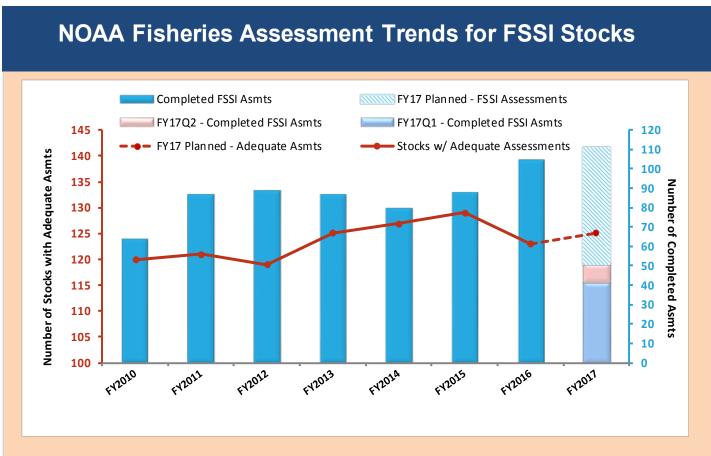
### Overview

Stock assessments are key to sustainable fisheries management. They provide scientific information to determine the status of fish stocks and to set annual catch limits (ACLs) that prevent overfishing and optimize yield from our Nation's fisheries. This Fish Assessment Report provides a quarterly update on the status of NOAA Fisheries assessment activities for federally managed fish stocks. For more information on stock assessments and how they are conducted, please see the FAQ's on Page 7 of this report.



Black sea bass, Centropristis striata

NOAA Fisheries works with its partners in each management area to conduct 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. U.S. fish stocks are divided into two general categories for developing national reports. The most commercially and recreationally important domestic stocks are tracked as components of the Fish Stock Sustainability Index (FSSI). These 199 stocks are collectively referred to as 'FSSI stocks' and account for 85 percent of total fisheries catch. In FY 2017 NOAA Fisheries plans to complete assessments for 90 of the 199 FSSI stocks. The remaining (non-FSSI) stocks consist of 275 federally managed stocks and stock complexes. While there is often a high priority for assessing FSSI stocks, stock status and ACLs must be set for non-FSSI stocks as well. In FY 2017 NOAA Fisheries plans to complete 140 assessments for non-FSSI stocks, complexes, or stock complex members.



Recent and projected assessment activity for federally managed stocks in the Fish Stock Sustainability Index (FSSI). By the end of Q2 FY 2017, 122 of 199 (61.8 percent) FSSI stocks had adequate assessments. This is projected to increase to 125 of 199 (63.3 percent) by the end of FY 2017.

## Completed and Planned Assessments

#### During Quarter 2, 102 stocks were assessed, including 10 FSSI and 92 non-FSSI stocks

During Quarter 2, NOAA Fisheries completed 10 assessments for FSSI stocks and 92 for non-FSSI stocks (see Table 1). The majority of this quarter's assessments were non-FSSI assessments of Pacific Coast salmon or Hawaiian reef fish stocks.

The Pacific Islands Fisheries Science Center (PIFSC) supports the management of numerous data-limited coral reef fish stocks. It has been conducting diver surveys over the past 15 years to enable robust assessments of these stocks. Using new data-limited assessment techniques primarily based on these diver surveys, the 27 assessments completed by the PIFSC this quarter represent the culmination of this research.

The 67 stock assessments completed in the West Coast region included 66 Pacific salmon assessments and an assessment of the Pacific Coast Pacific hake stock. These are annual assessments conducted during Q2.

Additional assessments completed this quarter include the Alaska Fishery Science Center's assessment of red king crab in Norton Sound. The northeast completed benchmark assessments for the Mid-Atlantic stocks of black sea bass and Atlantic surfclam as well as the northwest Atlantic witch flounder stock. The southeast completed assessments for three Gulf of Mexico shrimp stocks and the Gulf of Mexico greater amberjack stock.

Several timing changes affected the count of assessments to-date. The PIFSC completed the 26 reef-fish assessments planned for Q3 early and included one additional stock. The Southeast assessment of red royal shrimp in the Gulf of Mexico was delayed, erroneously, to Q2. That assessment is now included in the Q1 counts. Issues encountered during their review delayed the seven data-limited assessments planned in the southeast for Gulf of Mexico stocks to Q3, the assessment of Gag in the Gulf of Mexico to Q4, and the assessment of South Atlantic Red grouper to Q3.

The assessment of the Western Aleutian Islands red king crab stock was omitted from the Q1 report in error.

At the end of Q2 FY 2017, the percentage of FSSI stocks with adequate assessments is 61.3 percent (122/199). This number decreased from Q1 because the assessment of witch flounder in the Northwest Atlantic encountered issues with the level-4 model used in its previous assessment. NOAA Fisheries does not count the assessment as "adequate" because it used a level-1 index-based method that cannot provide full management advice (see definition of adequate on page 4).

NOAA Fisheries plans to complete an additional 34 assessments for FSSI stocks and 23 assessments of non-FSSI stocks in FY 2017 (Table 2). If completed they would bring the FY 2017 total count of assessments up to 227, which would be the largest number of stock assessments completed by NOAA Fisheries in one year. The supporting appendices of this report provide detailed information on the completed and planned assessments for FY 2017. Appendix A details FY 2017 completed assessments for FSSI stocks. Appendix B details FY 2017 completed assessments for non-FSSI stocks. Appendix C provides a list of the planned assessments remaining for both FSSI and non-FSSI stocks in FY 2017. Appendix D provides the assessment status of FSSI stocks. These appendices provide the best information available at the time of reporting and are subject to change. Any changes other than those related to assessment completion are shown in red.

Many stock assessments rely on data collected by NOAA's scientific surveys of fish stocks. NOAA Fisheries completed seven scientific surveys of fish stocks during Q2 FY 2017 (Table 2).¹ There are 44 additional surveys planned for the remainder of FY 2017.

For more information on NOAA Fisheries' stock assessments, please visit the NOAA Fisheries' National Stock Assessment Program website.<sup>2</sup>

<sup>1</sup> http://www.st.nmfs.noaa.gov/finss/

<sup>2 &</sup>lt;a href="http://www.st.nmfs.noaa.gov/stock-assessment/reports">http://www.st.nmfs.noaa.gov/stock-assessment/reports</a>

## Completed and Planned Assessments pg. 2

Table 1. FY 2017 Completed and Planned Assessments

	Quai	rter 1	Qua	rter 2	Quar	ter 3*	Quar	ter 4*	
Region	FSSI	Non - FSSI	Quarter 2 Highlights						
Northeast	0	0	3	0	4	0	9	1	Mid-Atlantic black sea bass and Atlantic surfclam, northwest Atlantic witch flounder
Southeast	4	4	4	0	1	8	7	1	Gulf of Mexico brown, white, and pink shrimp and greater amberjack
West Coast 1	0	0	2	65	5	0	7	4	West Coast salmon update assessments and Pacific hake update
West Pacific 2	0	0	0	27	0	0	0	3	Main Hawaiian Islands reef-fish stocks
Alaska	37	23	1	0	1	6	0	0	Red king crab Norton Sound stock
TOTAL	41	27	10	92	11	14	23	9	FY 2017 Anticipated Total: 227

Table 2. FY 2017 Completed and Planned Surveys

Science	Qua	rter 1	Qua	rter 2	Quai	rter 3*	Quai	rter 4*	
Center	NOAA	Charter	NOAA	Charter	NOAA	Charter	NOAA	Charter	Quarter 2 Highlights
NE	1	1	1	0	2	1	2	2	Ecosystem monitoring
SE	3	0	0	0	3	0	6	3	None planned
NW	1	2	2	0	1	3	0	2	Ecosystem forecasting, Pacific hake spawning acoustic
NW/SW	0	0	0	0	0	0	1	0	None planned
SW	1	2	1	0	2	0	2	3	CalCOFI
AK	1	0	2	0	1	0	1	5	Walleye Pollock Pre-spawning
PI	1	0	1	0	1	0	3	0	Bottomfish
TOTAL	8	5	7	0	10	4	15	15	FY 2017 Anticipated Total: 40 / 24

#### Footnotes:

<sup>\*</sup> Planned

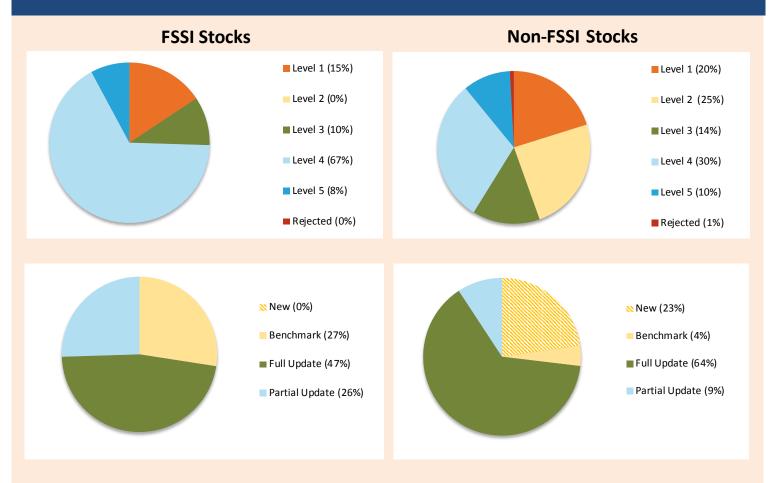
<sup>&</sup>lt;sup>1</sup> The West Coast region includes assessments conducted by the Northwest and Southwest Fisheries Science Centers and by international comissions for the Eastern Pacific Ocean in which those centers participate. This includes Pacific coast groundfish, Pacific coast salmon, and Highly Migratory Species.

<sup>&</sup>lt;sup>2</sup> The West Pacific region includes assessments conducted by the Pacific Islands Fisheries Science Center and international comissions for the 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 Q2 FY2017, 10 FSSI stocks were assessed. Three assessments were conducted as benchmarks and seven were full updates. Nine of those assessments provide the full suite of assessment advice and are considered adequate (level 3 or higher). Ninety-two non-FSSI stock assessments were completed, of which 48 were completed at level three or higher ("adequacy" is reported only for FSSI stocks). Index-based and simple life history approaches (level 1 and 2), along with indicator analyses (level 1), were conducted for one FSSI stock. These assessments provide important science-based advice for the management of data-limited stocks but fall below the "adequate" threshold. Assessment levels and types for all assessments completed during FY 2017 are shown in the figures below.

#### Assessment Levels and Assessment Types for Assessments Completed in FY 2017



Assessment Level	Description
1	An indicator analysis using time series of survey data, catch and effort, or a onetime abundance estimate
2	Simple equilibrium models applied to life history information; e.g. yield per recruit based on mortality
3	Equilibrium and non-equilibrium production models aggregated over age and/or over size
4	Size, stage, or age structured models
5	Level 3 or 4 models that directly include ecosystem considerations

Assessment Type	Description
New	First assessment conducted for a given stock
Benchmark	Comprehensive investigations using assessment approaches that substantially differ from previous iterations
Full Update	Assessments that include the most recent year of survey data and minor revisions to the assessment model
Partial Update	Assessments that used the latest catch estimates to advance the previous projections by one or more years to develop catch advice

### Quarterly Highlight: Pacific Islands Reef Fish Assessments

Coral reefs are among the most producdiverse, tive, and complex ecosystems on the planet. They support a large variety of reef fish stocks targeted commercial, recreational, subsisand fishertence Hawaiian ies. Islands culture



Bluespine unicornfish (*Naso unicornis*), or 'kala', is a shallow-water reef fish found in Hawaii. This species of unicornfish is important in artisanal and commercial fisheries throughout the Pacific Islands. Photo: NOAA Fisheries, Kevin Lino.

has deep connections to these important coastal fisheries. In support of the sustainable management of Hawaii's coral reef fish stocks, NOAA Fisheries completed new stock assessments for 27 stocks in February 2017.



Bluefin trevally (*Caranx melampygus*) near Kaho'olawe, Hawaii. Photo: NOAA Fisheries, Jeanette Clark.

Coral reef fish stocks generally yield limited data due to the dispersed nature of the fishing effort targeting them and the large number of fish species present in coral reef ecosystems. Historical catch levels and limited biomass estimates previously were the major factors influencing catch levels. Unfortunately, the historical catch information is uncertain. The new models developed and applied by the Pacific Islands Fisheries Science Center (PIFSC) provide results that are more robust by incorporating additional data on fish biology and total fish numbers. Scientists at the PIFSC gathered these data from fishery-independent diver surveys, as well as basic biology and life history studies. The assessment report for these 27 stocks

of Hawaiian reef fish presents estimates of recent fishing mortality levels and sustainable harvest levels.

These new stock assessments are a major accomplishment for NOAA Fisheries. Our scientists and scientists throughout the world have been working to develop techniques to provide quantitative advice in data-limited situations. This work by PIFSC scientists and comparable work by scientists from the Southeast Fisheries Science Center, focusing on Caribbean stocks, are among the cutting-edge efforts. These techniques can provide estimates of sustainable harvest levels that are more accurate and dependable than metrics based solely on historical catch. Further, they support the estimation of appropriate biological reference points to examine stock health, and determine overfishing status.



A school of yellowfin goatfish (*Mulloidichthys vanicolensis*) near Ni'ihau, Hawaii. Photo: NOAA Fisheries, Andrew E. Gray.

The results of the 27 reef fish stock assessments conducted by PIFSC are an important benchmark that will allow fishery managers to make informed decisions about optimal harvest policies for these stocks and their overfishing risk levels. The results indicate that overfishing is likely occurring for 11 of the assessed stocks, mainly those composed of species with longer lifespans and/or those in great demand by local fisheries. This demonstrates the importance of this research effort to provide stock-specific advice in a complex fishery management setting. Going forward, PIFSC will extend this data-limited approach to assess reef fish stocks of the United States Pacific territories, including American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The full assessment document can be found online at: <a href="https://repository.library.noaa.gov/view/noaa/13291">https://repository.library.noaa.gov/view/noaa/13291</a>

## 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 typically based on models of fish populations that require three primary categories of data inputs: catch, abundance, and biology, although data-limited assessments can be conducted when one or more of these data types are missing. Data inputs must be accurate and timely to ensure the highest quality stock assessments. 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, calculating sustainable harvest rates, and forecasting catch levels 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 a new Stock Assessment Improvement Plan (draft expected by the end of FY 2017).

#### 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 unassessed 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 http://www.st.nmfs.noaa.gov/StockAssessment/

Alaska Fisheries Science Center -Northwest Fisheries Science Center -Southwest Fisheries Science Center -Pacific Island Fisheries Science Center -Southeast Fisheries Science Center -Northeast Fisheries Science Center --

http://www.afsc.noaa.gov/ https://www.nwfsc.noaa.gov/ https://swfsc.noaa.gov/ http://www.pifsc.noaa.gov/ http://www.sefsc.noaa.gov/ http://www.nefsc.noaa.gov/

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

Completed Assessments for FSSI Stocks - FY2017 Quarter 1 (October - December, 2016)

•		or F551 510CKS - F12017 Quarter .	•		, ,	
Science	1	Charle	Asmt	A 7	A -1 4 -	Neter
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Adequate	Notes
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	4	Full Update	Υ	
		Arrowtooth flounder - Bering Sea /				
AFSC	NPFMC	Aleutian Islands	5	Benchmark	Υ	
AFCC	NPFMC	Arrowtooth flounder - Gulf of	4	Dartial Undata	Υ	
AFSC	NPFIVIC	Alaska	4	Partial Update	Ť	
AFSC	NPFMC	Atka mackerel - Bering Sea /	4	Benchmark	Υ	
		Aleutian Islands				
AFCC	NIDENAC	Bering Sea / Aleutian Islands	4	Danahasanlı	V	
AFSC	NPFMC	Blackspotted and Rougheye	4	Benchmark	Υ	
		Rockfish Complex Flathead sole - Bering Sea /				
AFSC	NPFMC	Aleutian Islands	5	Full Update	Υ	
		Northern rock sole - Bering Sea /				
AFSC	NPFMC	Aleutian Islands	4	Full Update	Υ	
AFCC	NIDENAG	Alaska skate - Bering Sea / Aleutian			.,	
AFSC	NPFMC	Islands	4	Full Update	Υ	
AFSC	NPFMC	Bering Sea / Aleutian Islands Other	3	Full Update	Υ	
Aisc	INFTIVIC	Skates Complex	3	Tuli Opuate	'	
AFSC	NPFMC	Blue king crab - Pribilof Islands	1	Full Update	N	
AFSC	NPFMC	Blue king crab - Saint Matthew	4	Full Update	Υ	
		Island				
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	4	Partial Update	Υ	
AFSC	NPFMC	Flathead sole - Gulf of Alaska	4	Partial Update	Υ	
Aisc	INFTIVIC		-	rartial Opuate	'	
AFSC	NPFMC	Greenland halibut - Bering Sea /	4	Benchmark	Υ	
		Aleutian Islands				
AFCC	NIDENAC	Gulf of Alaska Blackspotted and	4	Da whial Llosdaka	V	
AFSC	NPFMC	Rougheye Rockfish Complex	4	Partial Update	Υ	
AFSC	NPFMC	Dover sole - Gulf of Alaska	4	Partial Update	Υ	
AFSC	NPFMC	Gulf of Alaska Other Deepwater	1	Partial Update	N	
AFSC	NPFIVIC	Flatfish Complex	1	Partial Opuate	IN	
AFSC	NPFMC	Yelloweye rockfish - Gulf of Alaska	3	Partial Update	Υ	
A150	MITIVIE	Telloweye Focklish Gull of Alaska		Turtial Opaate	•	
AFSC	NPFMC	Northern rock sole - Gulf of Alaska	4	Partial Update	Υ	
				·		
AFSC	NPFMC	Gulf of Alaska Other Shallow	3	Partial Update	Υ	
		Water Flatfish Complex Shortspine thornyhead - Gulf of				
AFSC	NPFMC	Alaska	3	Partial Update	Υ	
. =		Northern rockfish - Bering Sea /			_	
AFSC	NPFMC	Aleutian Islands	4	Benchmark	Υ	
AESC	NDENAC	Northern rockfish - Western /	4	Dartial Undata	V	
AFSC	NPFMC	Central Gulf of Alaska	4	Partial Update	Υ	

Completed Assessments for FSSI Stocks - FY2017 Quarter 1 (October - December, 2016)

Science		OTTOST STOCKS - TT2017 Quarter	Asmt		, <b>,</b>	
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Adequate	Notes
AFSC	NPFMC	Pacific cod - Bering Sea	4	Benchmark	Υ	CIE Reviewed
AFSC	NPFMC	Pacific cod - Gulf of Alaska	4	Benchmark	Υ	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	4	Benchmark	Υ	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	4	Partial Update	Υ	
AFSC	NPFMC	Red king crab - Bristol Bay	4	Full Update	Υ	
AFSC	NPFMC	Red king crab - Pribilof Islands	1	Full Update	N	
AFSC	NPFMC	Rex sole - Gulf of Alaska	4	Partial Update	Υ	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	5	Benchmark	Υ	CIE Reviewed
AFSC	NPFMC	Snow crab - Bering Sea	4	Full Update		
AFSC	NPFMC	Southern Tanner crab - Bering Sea	4	Full Update		
AFSC	NPFMC	Walleye pollock - Aleutian Islands	4	Full Update	Υ	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	4	Benchmark	Υ	CIE Reviewed
AFSC	NPFMC	Walleye pollock - Western / Central Gulf of Alaska	4	Benchmark	Υ	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	5	Full Update	Υ	
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	1	Full Update	N	Omitted from Q1 Report
SEFSC	SAFMC	Brown rock shrimp - Southern Atlantic Coast	1	Full Update	N	
SEFSC	SAFMC	Brown shrimp - Southern Atlantic Coast	1	Full Update	N	
SEFSC	SAFMC	Pink shrimp - Southern Atlantic Coast	1	Full Update	N	
SEFSC	SAFMC	White shrimp - Southern Atlantic Coast	1	Full Update	N	

Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Asmt Level <sup>3</sup>	Asmt Type	Adequate	Notes
AFSC	NPFMC	Red king crab - Norton Sound	4	Full Update	Y	1.000
NEFSC	MAFMC	Atlantic surfclam - Mid-Atlantic Coast	4	Benchmark	Υ	Delayed from Q4 FY16, Q4 Data Update scheduled
NEFSC	MAFMC	Black sea bass - Mid-Atlantic Coast	4	Benchmark	Υ	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	1	Benchmark	N	Initially planned for level 4
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (fall)	3	Update	Υ	

Science	Jurisdiction <sup>2</sup>	Grad.	Asmt Level <sup>3</sup>	A T	A.1	Notes
Center(s) <sup>1</sup>	Jurisaiction	Stock	Levei	Asmt Type	Adequate	Notes
NW/SW	PFMC	Chinook salmon - Northern California Coast: Klamath (fall)	4	Update	Υ	
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	4	Full Update	Υ	Delayed from Q1, FY17
SEFSC	GMFMC	Greater amberjack - Gulf of Mexico	4	Update	Υ	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	4	Full Update	Υ	Delayed from Q1, FY17
SEFSC	GMFMC	White shrimp - Gulf of Mexico	4	Full Update	Υ	Delayed from Q1, FY17
Footnotes						

<sup>&</sup>lt;sup>1</sup>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).

<sup>&</sup>lt;sup>2</sup>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).

<sup>&</sup>lt;sup>3</sup>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 (<a href="http://www.st.nmfs.noaa.gov/StockAssessment/index.html">http://www.st.nmfs.noaa.gov/StockAssessment/index.html</a>). 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 - FY2017 Quarter 1 (October - December, 2016)

Completed Assessments for Non-FSSI Stocks - FY2017 Quarter 1			(October - December, 2016)			
Science			Asmt			
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Notes on Assessment	
AFSC	NPFMC	Atka mackerel - Gulf of Alaska	1	Benchmark		
AFSC	NPFMC	Giant octopus - Bering Sea / Aleutian Islands	1	Full Update		
AFSC	NPFMC	Bering Sea / Aleutian Islands Other Flatfish Complex	3	Full Update		
AFSC	NPFMC	Bering Sea / Aleutian Islands Other Rockfish Complex	1	Full Update		
AFSC	NPFMC	Bering Sea / Aleutian Islands Sculpin Complex	3	Full Update		
AFSC	NPFMC	Bering Sea / Aleutian Islands Shark Complex	1	Full Update		
AFSC	NPFMC	Bering Sea / Aleutian Islands Squid Complex	1	Full Update		
AFSC	NPFMC	Giant octopus - Gulf of Alaska	1	Partial Update		
AFSC	NPFMC	Gulf of Alaska Other Rockfish Complex	3	Partial Update		
AFSC	NPFMC	Gulf of Alaska Sculpin Complex	3	Partial Update		
AFSC	NPFMC	Rock sole - Gulf of Alaska	4	Partial Update		
AFSC	NPFMC	Gulf of Alaska Shark Complex	1	Partial Update		
AFSC	NPFMC	Gulf of Alaska Skate Complex	3	Partial Update		
AFSC	NPFMC	Big skate - Gulf of Alaska	3	Partial Update	Split from Alaska Skate Complex	
AFSC	NPFMC	Gulf of Alaska Squid Complex	1	Partial Update		
AFSC	NPFMC	Kamchatka flounder - Bering Sea / Aleutian Islands	4	Full Update		
AFSC	NPFMC	Longnose skate - Gulf of Alaska	3	Partial Update	Split from Alaska Skate Complex	
AFSC	NPFMC	Pacific cod - Aleutian Islands	3	Full Update		
AFSC	NPFMC	Red king crab - Western Aleutian Islands	1	Full Update	Ommitted from Q1 Report in error	
AFSC	NPFMC	Shortraker rockfish - Bering Sea / Aleutian Islands	3	Full Update		
AFSC	NPFMC	Shortraker rockfish - Gulf of Alaska	3	Partial Update		
AFSC	NPFMC	Walleye pollock - Bogoslof	3	Full Update		
AFSC	NPFMC	Walleye pollock -Southeast Gulf of Alaska	3	Partial Update		
SEFSC	HMS	Albacore - North Atlantic	4	Benchmark		
SEFSC	HMS	Sailfish - Western Atlantic	4	Benchmark		
SEFSC	HMS	Yellowfin tuna - Atlantic	4	Benchmark		

#### Completed Assessments for Non-FSSI Stocks - FY2017 Quarter 1 (October - December, 2016)

Science			Asmt		
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Notes on Assessment
SEFSC	SAFMC /	Goliath grouper - Southern Atlantic	1	Benchmark	Assessment was rejected due to
SEFSC	GMFMC	Coast / Gulf of Mexico	-1	Belicilliark	model uncertainty

Complete	u Assessifiei	its for Non-FSSI Stocks - FY2017 Qua	arter 2 (	January - Ivid	iicii, 2017 j
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Asmt Level <sup>3</sup>	Asmt Type	Notes on Assessment
NW/SW	PFMC	Pacific hake - Pacific Coast	4	Update	
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (spring)	1	Update	
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (winter)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Lower River Hatchery (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Lower River Hatchery (spring)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Mid-River Bright Hatchery (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: North Lewis (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Snake (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Snake (spring/summer)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Spring Creek Hatchery (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River (spring)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River (summer)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River Bright (fall)	4	Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper Willamette (spring)	4	Update	
NW/SW	PFMC	Chinook salmon - Northern California Coast: Eel, Mattole, and Mad (fall/spring) (California Coastal)	1	Update	
NW/SW	PFMC	Chinook salmon - Northern California Coast: Klamath (spring)	4	Update	
NW/SW	PFMC	Chinook salmon - Oregon Coast: Central and Northern	3	Update	
NW/SW	PFMC	Chinook salmon - Oregon Coast: Southern	3	Update	

Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Asmt Level <sup>3</sup>	Asmt Type	Notes on Assessment
		Chinook salmon - Puget Sound: Cedar			itotes on rissessment
NW/SW	PFMC	(summer/fall)	4	Update	
		Chinook salmon - Puget Sound:			
NW/SW	PFMC	Eastern Strait of Juan de Fuca	4	Update	
		(summer/fall)			
	25146	Chinook salmon - Puget Sound: Green			
NW/SW	PFMC	(summer/fall)	4	Update	
NI) A / /C) A /	DE1.46	Chinook salmon - Puget Sound: Mid	4		
NW/SW	PFMC	Hood Canal (summer/fall)	1	Update	
NI) A / /C) A /	DE1.46	Chinook salmon - Puget Sound:	4		
NW/SW	PFMC	Nisqually (summer/fall)	1	Update	
NI) A / /C) A /	DE1.46	Chinook salmon - Puget Sound:	_		
NW/SW	PFMC	Nooksack (spring early)	4	Update	
		Chinook salmon - Puget Sound:			
NW/SW	PFMC	Puyallup (summer/fall)	3	Update	
	25146	Chinook salmon - Puget Sound: Skagit			
NW/SW	PFMC	(spring)	3	Update	
NI) A / /C) A /	25146	Chinook salmon - Puget Sound: Skagit	_		
NW/SW	PFMC	(summer/fall)	5	Update	
		Chinook salmon - Puget Sound:			
NW/SW	PFMC	Skokomish (summer/fall)	1	Update	
	25146	Chinook salmon - Puget Sound:	_		
NW/SW	PFMC	Snohomish (summer/fall)	5	Update	
	25146	Chinook salmon - Puget Sound:	_		
NW/SW	PFMC	Stillaguamish (summer/fall)	5	Update	
		Chinook salmon - Puget Sound: White	_		
NW/SW	PFMC	River (spring)	3	Update	
	25146	Chinook salmon - Washington Coast:	_		
NW/SW	PFMC	Grays Harbor (fall)	1	Update	
NIVA / /CVA /	DE1.46	Chinook salmon - Washington Coast:	4		
NW/SW	PFMC	Grays Harbor (spring)	1	Update	
	25146	Chinook salmon - Washington Coast:	_		
NW/SW	PFMC	Hoh (fall)	1	Update	
NI) A / /C) A /	DE1.46	Chinook salmon - Washington Coast:	4		
NW/SW	PFMC	Hoh (spring/summer)	1	Update	
NI) A / /C) A /	DE1.46	Chinook salmon - Washington Coast:			
NW/SW	PFMC	Hoko (summer/fall)	4	Update	
NIVAL/CVAL	DENAC	Chinook salmon - Washington Coast:	F	I I and a Ann	
NW/SW	PFMC	Queets (fall)	5	Update	
NIVA / /CVA /	DE1.46	Chinook salmon - Washington Coast:	-		
NW/SW	PFMC	Queets (spring/summer)	2	Update	
	25146	Chinook salmon - Washington Coast:			
NW/SW	PFMC	Quillayute (fall)	2	Update	
		• • •			
NW/SW	PFMC	Chinook salmon - Washington Coast:	1	Update	
		Quillayute (spring/summer)		<b> </b>	
NIVA / COM	DE1.40	Chinook salmon - Washington Coast:			
NW/SW	PFMC	Quinault Fall (hatchery)	4	Update	
NIVAL/CVAL	DE\$ 40	Chinook salmon - Washington Coast:	4	11	
NW/SW	PFMC	Willapa Bay Fall (hatchery)	4	Update	

	Science		Asmt	,	_ · , · ,
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Notes on Assessment
NW/SW	PFMC	Chinook salmon - Washington Coast: Willapa Bay Fall (natural)	4	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Central California Coast	1	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (early hatchery)	4	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (late hatchery)	4	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (natural)	4	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Southern Oregon / Northern California Coast	1	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Oregon Coastal (hatchery)	1	Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Oregon Coastal (natural)	5	Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Hood Canal	4	Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Skagit	5	Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Snohomish	4	Update	
NW/SW	PFMC	Coho salmon - Puget Sound: South Puget Sound (hatchery)	4	Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Stillaguamish	4	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Grays Harbor	5	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Hoh	5	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Queets	5	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Quillayute (fall)	4	Update	
NW/SW	PFMC	Coho salmon - Washington Coast:  Quillayute (summer)	4	Update	
NW/SW	PFMC	Coho salmon - Washington Coast:  Quinault	1	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Strait of Juan de Fuca	5	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Willapa Bay	5	Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Willapa Bay (natural)	5	Update	
NW/SW	PFMC	Pink salmon - Puget Sound (odd- numbered years)	1	Update	

Science		115 101 NO11-F331 310CKS - F12017 Qua	Asmt		
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Notes on Assessment
PIFSC	WPFMC	Parupeneus insularis - Doublebar goatfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Parupeneus porphyreus: Whitesaddle goatfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Mulloidichthys vanicolensis: Yellowfin goatfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Mulloidichthys flavolineatus - Yellowstripe goatfish	2	New	Completed early - expected Q3
PIFSC	WPFMC	Cephalopholis argus - Peacock hind - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Caranx ignobilis - Main Hawaiian Islands Jack	2	New	Completed early - expected Q3
PIFSC	WPFMC	Caranx melampygus - Main Hawaiian Islands Jack -	2	New	Completed early - expected Q3
PIFSC	WPFMC	Chlorurus spilurus -Bullethead parrotfish	2	New	Completed early - expected Q3
PIFSC	WPFMC	Lutjanus fulvus - Blacktail snapper	2	New	Completed early - expected Q3
PIFSC	WPFMC	Scarus rubroviolaceus - Redlip parrotfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Scarus psittacus - Palenose parrotfish	2	New	Completed early - expected Q3
PIFSC	WPFMC	Acanthurus dussumieri (Eyestripe surgeonfish)	2	New	Completed early - expected Q3
PIFSC	WPFMC	Naso brevirostris	2	New	Completed early - expected Q3
PIFSC	WPFMC	Naso hexacanthus	2	New	Completed early - expected Q3
PIFSC	WPFMC	Naso lituratus	2	New	Completed early - expected Q3
PIFSC	WPFMC	Naso unicornis	2	New	Completed early - expected Q3
PIFSC	WPFMC	Mulloidichthys pflugeri - Orange goatfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Parupeneus cyclostomus - Yellowsaddle goatfish - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	<i>Monotaxis grandoculis</i> -Bigeye Emperor	2	New	Completed early - expected Q3
PIFSC	WPFMC	Bigscale soldierfish - Main Hawaiian Islands ( <i>Myripristis berntdi</i> )	2	New	Completed early - expected Q3
PIFSC	WPFMC	Acanthurus blochii	2	New	Completed early - expected Q3
PIFSC	WPFMC	Calotomus carolinus	2	New	Completed early - expected Q3
PIFSC	WPFMC	Chlorurus perspicillatus - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Scarus dubius - Main Hawaiian Islands	2	New	Completed early - expected Q3
PIFSC	WPFMC	Carangoides orthogrammus	2	New	Completed early - expected Q3
PIFSC	WPFMC	Aprion Virescens - Green jobfish - Main Hawaiian Islands	2	New	Completed early - expected Q3, not planned

#### Completed Assessments for Non-FSSI Stocks - FY2017 Quarter 2 (January - March, 2017)

Science			Asmt		
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Level <sup>3</sup>	Asmt Type	Notes on Assessment
PIFSC	WPFMC	Lutjanus kasmira - Common bluestripe snapper - Main Hawaiian Islands	2	New	Completed early - expected Q3, not planned

#### **Footnotes**

<sup>&</sup>lt;sup>1</sup>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).

<sup>&</sup>lt;sup>2</sup>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).

<sup>&</sup>lt;sup>3</sup>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 (<a href="http://www.st.nmfs.noaa.gov/StockAssessment/index.html">http://www.st.nmfs.noaa.gov/StockAssessment/index.html</a>). 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 C. Planned assessments for FSSI and non-FSSI stocks in FY2017 by quarter. Information is best available provided by NOAA Fisheries Science Centers and subject to change.

Planned A	Planned Assessments for FSSI and Non-FSSI Stocks - FY2017 Quarter 3 (April - June, 2017)										
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	FSSI / Non-FSSI <sup>3</sup>	Stock	Planned Asmt Level <sup>4</sup>	Planned Asmt Type	Notes					
AFSC	NPFMC	FSSI	Golden king crab - Aleutian Islands	1	Full Update						
AFSC	NPFMC	Non - FSSI	Golden king crab - Pribilof Islands	1	Full Update						
AFSC	NPFMC	Non - FSSI	Weathervane scallop - Alaska	1	Full Update						
NEFSC	MAFMC	FSSI	Bluefish - Atlantic Coast	4	Full Update						
NEFSC	MAFMC	FSSI	Butterfish - Gulf of Maine / Cape Hatteras	5	Full Update						
NEFSC	MAFMC	FSSI	Longfin inshore squid - Georges Bank / Cape Hatteras	1	Full Update						
NEFSC	MAFMC	FSSI	Ocean quahog - Atlantic Coast	4	Benchmark						
NEFSC	MAFMC	FSSI	Tilefish - Mid-Atlantic Coast	4	Full Update						
NW/SW	PFMC	FSSI	Blackgill rockfish - Southern California	4	Full Update						
NW/SW	PFMC	FSSI	Bocaccio - Southern Pacific Coast	4	Full Update						
NW/SW	PFMC	FSSI	Darkblotched rockfish - Pacific Coast	4	Full Update						
SEFSC	SAFMC	FSSI	Red grouper - Southern Atlantic Coast	4	Standard	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Speckled hind - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Snowy Grouper - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Almaco jack - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Lesser amberjack - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Wenchman -Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Lane snapper - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Red drum - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SEFSC	GMFMC	Non - FSSI	Yellowmouth grouper - Gulf of Mexico	4	New	Delayed from Q2 FY17					
SWFSC	PFMC	FSSI	Pacific sardine - Pacific Coast	4	Benchmark						
SWFSC	PFMC	FSSI	Pacific chub mackerel - Pacific Coast	4	Full Update	Not on initial schedule					
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 - Hugh Smith Lake	4	Full Update						
AFSC	NPFMC	Non - FSSI	Chinook salmon - Eastern North Pacific Far North Migrating	4	Full Update						

Science		FSSI /		Asmt	Planned	
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Non-FSSI <sup>3</sup>	Stock	Level <sup>4</sup>	Asmt Type	Notes
NEFSC	NEFMC	Non - FSSI	Atlantic salmon - Gulf of Maine	4	Full Update	
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	Little skate - Georges Bank / Southern New England	1	Full Update	
NEFSC	NEFMC	FSSI	Rosette skate - Southern New England / Mid- Atlantic	1	Full Update	
NEFSC	NEFMC	FSSI	Sea scallop - Northwestern Atlantic Coast	1	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	
NW/SW	PFMC	FSSI	Arrowtooth flounder - Pacific Coast	4	Full Update	
NW/SW	PFMC	FSSI	Blue rockfish - California	4	Benchmark	
NW/SW	PFMC	FSSI	California scorpionfish - Southern California	4	Benchmark	
NW/SW	PFMC	FSSI	Lingcod - Pacific Coast	4	Benchmark	
NW/SW	PFMC	FSSI	Pacific ocean perch - Pacific Coast	4	Benchmark	
NW/SW	PFMC	FSSI	Yelloweye rockfish - Pacific Coast	4	Benchmark	
NW/SW	PFMC	FSSI	Yellowtail rockfish - Northern Pacific Coast	3	Benchmark	
SEFSC	CFMC	FSSI	St.Croix (Caribbean) spotlight parrotfish	2	New	Delayed from Q FY16
SEFSC	CFMC	FSSI	Yellowtail snapper - Puerto Rico	2	New	Delayed from Q FY16
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St. Croix (formerly Caribbean)	2	Benchmark	Delayed from Q FY16
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St Thomas (formerly Caribbean)	2	Benchmark	Delayed from Q FY16
SEFSC	CFMC	Non - FSSI	Hogfish - Puerto Rico	2	New	Delayed from Q FY16
SEFSC	CFMC	FSSI	St. Thomas / St. John Queen Triggerfish	2	New	Delayed from Q FY16
SEFSC	GMFMC	FSSI	Gag - Gulf of Mexico	4	Update	Delayed from Q
SEFSC	SAFMC	FSSI	Black sea bass - Southern Atlantic Coast	4	Standard	
SW/PI	PFMC / WPFMC	INT	Bigeye tuna - Eastern Pacific	4	Full Update	Delayed from Q FY17
SW/PI	PFMC / WPFMC	INT	Yellowfin tuna - Eastern Pacific	4	Full Update	Delayed from Q FY18
SW/PI	PFMC / WPFMC	INT	Striped marlin - Eastern Pacific	NA	Data Update	Delayed from Q FY16, Assessmen Type Under

Planned A	Planned Assessments for FSSI and Non-FSSI Stocks - FY2017 Quarter 4 (July - September, 2017)										
				Planned							
Science		FSSI /		Asmt	Planned						
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Non-FSSI <sup>3</sup>	Stock	Level⁴	Asmt Type	Notes					
SW/PI	PFMC / WPFMC	INT	Swordfish - Eastern Pacific	NA	Data Update	Assessment Type Under Review					
SW/PI	PFMC / WPFMC	INT	Albacore - North Pacific	4	Full Update						
SW/PI	PFMC / WPFMC	INT	Blue shark - North Pacific	3	Full Update						
SW/PI	PFMC / WPFMC	INT	Thresher shark - North Pacific	UNK	New						

#### **Footnotes**

<sup>1</sup> 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).

<sup>2</sup>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 <sup>3</sup>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.

<sup>4</sup>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 (<a href="http://www.st.nmfs.noaa.gov/StockAssessment/index.html">http://www.st.nmfs.noaa.gov/StockAssessment/index.html</a>). A negative level Data Updates are not counted as stock assessments.

Appendix D. Assessment status for FSSI stocks and stock complexes at the end of Q4 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/.

		<u> </u>	1111110		et Assessment	ortary.	
Science			Fiscal	La	st Assessment		
Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	2017	4	Full Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Bering Sea / Aleutian Islands	2017	5	Full Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Atka mackerel - Bering Sea / Aleutian Islands	2017	4	Benchmark	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Blackspotted and Rougheye Rockfish Complex	2017	4	Benchmark	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Flathead Sole Complex	2017	5	Full Update	Yes	The assessment is for the Flathead Sole Complex indicator stock, flathead sole.
AFSC	NPFMC	Bering Sea / Aleutian Islands Rock Sole Complex	2017	4	Full Update	Yes	The assessment listed is for the Rock Sole Complex indicator stock, Northern rock sole.
AFSC	NPFMC	Bering Sea / Aleutian Islands Skate Complex	2017	4	Full Update	Yes	The assessment is for the Bering Sea / Aleutian Islands Skate Complex indicator stock, Alaska skate.
AFSC	NPFMC	Blue king crab - Pribilof Islands	2017	1	Full Update	No	
AFSC	NPFMC	Blue king crab - Saint Matthew Island	2017	4	Full Update	Yes	
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Flathead sole - Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Golden king crab - Aleutian Islands	2016	1	Full Update	No	
AFSC	NPFMC	Greenland halibut - Bering Sea / Aleutian Islands	2017	4	Benchmark	Yes	
AFSC	NPFMC	Gulf of Alaska Blackspotted and Rougheye Rockfish Complex	2017	4	Partial Update	Yes	
AFSC	NPFMC	Gulf of Alaska Deepwater Flatfish Complex	2017	4	Partial Update	Yes	The assessment is for Deepwater Flatfish Complex indicator stock, Dover sole.

				La	st Assessment		
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
AFSC	NPFMC	Gulf of Alaska Demersal Shelf Rockfish Complex	2017	3	Partial Update	Yes	The assessment is for Demersal Shelf Rockfish Complex indicator stock, yelloweye rockfish.
AFSC	NPFMC	Gulf of Alaska Shallow Water Flatfish Complex	2017	4	Partial Update	Yes	The assessment is for Gulf of Alaska Shallow Water Flatfish Complex indicator stocks, rock sole and Northern rock sole.
AFSC	NPFMC	Gulf of Alaska Thornyhead Rockfish Complex	2017	3	Partial Update	Yes	The assessment is for the Thornyhead Rockfish Complex indicator stock, shortspine thornyhead.
AFSC	NPFMC	Northern rockfish - Bering Sea / Aleutian Islands	2017	4	Benchmark	Yes	
AFSC	NPFMC	Northern rockfish - Western / Central Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Pacific cod - Bering Sea / Aleutian Islands	2017	4	Benchmark	Yes	CIE Reviewed
AFSC	NPFMC	Pacific cod - Gulf of Alaska	2017	4	Benchmark	Yes	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	2017	4	Benchmark	Yes	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Red king crab - Bristol Bay	2017	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Norton Sound	2017	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Pribilof Islands	2017	1	Full Update	No	
AFSC	NPFMC	Rex sole - Gulf of Alaska	2017	4	Partial Update	Yes	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	2017	5	Benchmark	Yes	CIE Reviewed
AFSC	NPFMC	Snow crab - Bering Sea	2017	4	Full Update	Yes	
AFSC	NPFMC	Southern Tanner crab - Bering Sea	2017	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Aleutian Islands	2017	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	2017	4	Benchmark	Yes	
AFSC	NPFMC	Walleye pollock - Western / Central / West Yakutat Gulf of Alaska	2017	4	Benchmark	Yes	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	2017	5	Full Update	Yes	

				La	st Assessment		
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
Center(s)	Jurisalction		2010	(-4)	Full Update	Adequater	Assessment Notes
NEFSC	MAFMC	Atlantic mackerel - Gulf of Maine / Cape Hatteras	2016	1	Indicator Analysis	No	
		Atlantic surfclam - Mid-	2017	4	Benchmark		
NEFSC	MAFMC	Atlantic Coast	2016	1	Indicator Analysis	Yes	
		Black sea bass - Mid-	2017	4	Benchmark		
NEFSC	MAFMC	Atlantic Coast	2016	1	Indicator Analysis	Yes	
NEECC	N 4 A EN 4 C	Diversials Atlantia Coast	2015	4	Benchmark	Vaa	
NEFSC	MAFMC	Bluefish - Atlantic Coast	2016	1	Indicator Analysis	Yes	
NEFSC	MAFMC	Butterfish - Gulf of Maine /	2014	5	Benchmark	Yes	
NEFSC	IVIAFIVIC	Cape Hatteras	2016	1	Indicator Analysis	res	
NEFSC	MAFMC	Longfin inshore squid - Georges Bank / Cape Hatteras	2016	1	Indicator Analysis	No	
		Northern shortfin squid -	2005	2	Benchmark		
NEFSC	MAFMC	Northwestern Atlantic Coast	2016	1	Indicator Analysis	No	
NEECO		Ocean quahog - Atlantic	2013	4	Full Update	.,	
NEFSC	MAFMC	Coast	2016	1	Indicator Analysis	Yes	
			2015	4	Benchmark		
NEFSC	MAFMC	Scup - Atlantic Coast	2016	1	Indicator Analysis	Yes	
NEFSC	MAFMC	Summer flounder - Mid- Atlantic Coast	2016	4	Full Update	Yes	
		Tilefish - Mid-Atlantic	2014	4	Benchmark		
NEFSC	MAFMC	Coast	2016	1	Indicator Analysis	Yes	
NEFSC	NEFMC	Acadian redfish - Gulf of Maine / Georges Bank	2016	4	Full Update	Yes	
NEFSC	NEFMC	American plaice - Gulf of Maine / Georges Bank	2016	4	Full Update	Yes	
NEFSC	NEFMC	Atlantic cod - Georges Bank	2016	(-4)	Full Update	Yes	Asmts conducted on Eastern Georges Bank substock (4, Full Update, 2016) and Georges Bank (-4). Previous asmt for Georges Bank still considered adequate.
NEFSC	NEFMC	Atlantic cod - Gulf of Maine	2016	4	Full Update	Yes	
NEFSC	NEFMC	Atlantic halibut - Northwestern Atlantic Coast	2016	(-3)	Full Update	See note	Previous asmt for Atlantic halibut still considered adequate.
NEFSC	NEFMC	Atlantic herring - Northwestern Atlantic Coast	2015	5	Full Update	Yes	

				La	st Assessment		
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
NEFSC	NEFMC	Atlantic wolffish - Gulf of Maine / Georges Bank	2016	4	Full Update	Yes	
NEFSC	NEFMC	Barndoor skate - Georges Bank / Southern New England	2016	1	Full Update	No	
NEFSC	NEFMC	Clearnose skate - Southern New England / Mid- Atlantic	2016	1	Full Update	No	
NEFSC	NEFMC	Haddock - Georges Bank	2016	4	Full Update	Yes	Asmts conducted on Eastern Georges Bank substock (4, Partial Update, 2016) and Georges Bank
NEFSC	NEFMC	Haddock - Gulf of Maine	2016	4	Full Update	Yes	
NEFSC	NEFMC	Little skate - Georges Bank / Southern New England	2016	1	Full Update	No	
NEFSC	NEFMC	Ocean pout - Northwestern Atlantic Coast	2016	1	Full Update	No	
NEFSC	NEFMC	Offshore hake - Northwestern Atlantic Coast	2011	-1	Benchmark	No	
NEFSC	NEFMC	Pollock - Gulf of Maine / Georges Bank	2016	4	Full Update	Yes	
NEFSC	NEFMC	Red deepsea crab - Northwestern Atlantic	2008	1	Benchmark	No	
NEFSC	NEFMC	Red hake - Gulf of Maine / Northern Georges Bank	2015	1	Full Update	No	
NEFSC	NEFMC	Red hake - Southern Georges Bank / Mid- Atlantic	2015	1	Full Update	No	
NEFSC	NEFMC	Rosette skate - Southern New England / Mid- Atlantic	2016	1	Full Update	No	
NEFSC	NEFMC	Sea scallop - Northwestern Atlantic Coast	2016	4	Partial Update	Yes	
NEFSC	NEFMC	Silver hake - Gulf of Maine / Northern Georges Bank	2014	1	Full Update	No	
NEFSC	NEFMC	Silver hake - Southern Georges Bank / Mid- Atlantic	2014	1	Full Update	No	
NEFSC	NEFMC	Smooth skate - Gulf of Maine	2016	1	Full Update	No	
NEFSC	NEFMC	Thorny skate - Gulf of Maine	2016	1	Full Update	No	

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Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
NEFSC	NEFMC	White hake - Gulf of Maine / Georges Bank	2016	4	Full Update	Yes	ASSESSMENT NOTES
NEFSC	NEFMC	Windowpane - Gulf of Maine / Georges Bank	2016	1	Full Update	No	
NEFSC	NEFMC	Windowpane - Southern New England / Mid- Atlantic	2016	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Georges Bank	2016	4	Full Update	Yes	
NEFSC	NEFMC	Winter flounder - Gulf of Maine	2016	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Southern New England / Mid- Atlantic	2016	4	Full Update	Yes	
NEFSC	NEFMC	Winter skate - Georges Bank / Southern New England	2016	1	Full Update	No	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	2017	1	Benchmark	No	Retrospective patters in the assessment model pushed the Center to adopt an index method
NEFSC	NEFMC	Yellowtail flounder - Cape Cod / Gulf of Maine	2016	4	Full Update	Yes	
NEFSC	NEFMC	Yellowtail flounder -	2013	4	Full Update Indicator	Yes	
		Georges Bank	2016	1	Analysis		
NEFSC	NEFMC	Yellowtail flounder - Southern New England / Mid-Atlantic	2016	4	Benchmark	Yes	
NEECC	NEFMC/	Goosefish - Gulf of Maine /	2013	4	Full Update	Vaa	
NEFSC	MAFMC	Northern Georges Bank	2016	1	Indicator Analysis	Yes	
NEFSC	NEFMC/	Goosefish - Southern Georges Bank / Mid-	2013	4	Full Update Indicator	Yes	
IVEI 3C	MAFMC	Atlantic	2016	1	Analysis	163	
NEFSC	NEFMC/	Spiny dogfish - Atlantic	2014	4	Full Update Indicator	Yes	
	MAFMC	Coast	2016	1	Analysis	. 55	
NWFSC/ SWFSC	PFMC	Arrowtooth flounder - Pacific Coast	2015	4	Partial Update	Yes	
NWFSC/ SWFSC	PFMC	Black rockfish - Northern Pacific Coast	2016	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Black rockfish - Southern Pacific Coast	2016	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Blackgill rockfish - Southern California	2011	4	Benchmark	No	

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Center(s) <sup>1</sup> NWFSC/	Jurisdiction <sup>2</sup>	Stock	Year	Levei	Туре	Adequate?	Assessment Notes
SWFSC	PFMC	Blue rockfish - California	2007	4	New	No	
NWFSC/ SWFSC	PFMC	Bocaccio - Southern Pacific Coast	2015	4	Full Update	Yes	
NWFSC/ SWFSC	PFMC	Brown rockfish - Pacific Coast	2013	3	New	Yes	
NWFSC/ SWFSC	PFMC	Cabezon - California	2009	4	Benchmark	No	
NWFSC/ SWFSC	PFMC	California scorpionfish - Southern California	2016	4	Partial Update	Yes	
NWFSC/ SWFSC	PFMC	Canary rockfish - Pacific Coast	2015	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Chilipepper - Southern Pacific Coast	2015	4	Full Update	Yes	
NWFSC/ SWFSC	PFMC	Chinook salmon - Sacramento River Fall	2017	4	Full Update	Yes	Accidentally Reversed
NWFSC/ SWFSC	PFMC	Chinook salmon - Klamath River Fall	2017	3	Full Update	Yes	Accidentally Reversed
NWFSC/ SWFSC	PFMC	Cowcod - Southern California	2013	3	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Darkblotched rockfish - Pacific Coast	2015	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Dover sole - Pacific Coast	2011	4	Benchmark	No	
NWFSC/ SWFSC	PFMC	English sole - Pacific Coast	2013	3	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Gopher rockfish - Northern California	2005	4	Full Update	No	
NWFSC/ SWFSC	PFMC	Greenspotted rockfish - Pacific Coast	2011	3	New	No	
NWFSC/ SWFSC	PFMC	Greenstriped rockfish - Pacific Coast	2009	4	New	No	
NWFSC/ SWFSC	PFMC	Kelp greenling - Oregon	2015	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Lingcod - Pacific Coast	2009	4	Benchmark	No	
NWFSC/ SWFSC	PFMC	Longnose skate - Pacific Coast	2007	4	Full Update	No	
NWFSC/ SWFSC	PFMC	Longspine thornyhead - Pacific Coast	2013	3	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Pacific ocean perch - Pacific Coast	2011	4	Benchmark	No	
NWFSC/ SWFSC	PFMC	Pacific sanddab - Pacific Coast	2013	4	New	Yes	Partial acceptance status determinations only
NWFSC/ SWFSC	PFMC	Petrale sole - Pacific Coast	2015	4	Full Update	Yes	
NWFSC/ SWFSC	PFMC	Rex sole - Pacific Coast	2013	3	Full Update	Yes	
NWFSC/ SWFSC	PFMC	Rougheye rockfish - Pacific Coast	2013	4	Full Update	Yes	

			Last Assessment				
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Center(s) <sup>1</sup> NWFSC/	Jurisdiction <sup>2</sup>	Stock	Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
SWFSC	PFMC	Sablefish - Pacific Coast	2015	4	Full Update	Yes	
NWFSC/ SWFSC	PFMC	Shortbelly rockfish - Pacific Coast	2007	4	New	No	
NWFSC/ SWFSC	PFMC	Shortspine thornyhead - Pacific Coast	2013	3	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Spiny dogfish - Pacific Coast	2011	4	New	No	
NWFSC/ SWFSC	PFMC	Splitnose rockfish - Pacific Coast	2009	4	New	No	
NWFSC/ SWFSC	PFMC	Starry flounder - Pacific Coast	2005	4	New	No	
NWFSC/ SWFSC	PFMC	Vermilion rockfish - California	2005	-4	New	No	Rejected results too uncertain to be considered adaquate
NWFSC/ SWFSC	PFMC	Widow rockfish - Pacific Coast	2015	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Yelloweye rockfish - Pacific Coast	2016	4	Partial Update	Yes	
NWFSC/ SWFSC	PFMC	Yellowtail rockfish - Northern Pacific Coast	2013	3	Benchmark	Yes	
PIFSC	WPFMC	American Samoa Bottomfish Multi-species Complex	2015	3	Full Update	Yes	
PIFSC	WPFMC	Guam Bottomfish Multi- species Complex	2015	3	Full Update	Yes	
PIFSC	WPFMC	Main Hawaiian Islands Deep Bottomfish Multi- species Complex	2015	-3	Benchmark	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	Full Update	Yes	
SEFSC	CFMC	Caribbean Groupers	2014	1	Benchmark	No	Assessment of complex component red hind
SEFSC	CFMC	Caribbean Parrotfish Complex		N	Α	No	Assessment planned for FY16 Delayed
SEFSC	CFMC	Caribbean Snappers	2012	2	New	No	Assessment of complex component silk snapper, Assessment planned for FY16 Delayed
SEFSC	CFMC	Caribbean spiny lobster - Puerto Rico	2009	2	New	No	Basin-wide assessment of Caribbean spiny lobster.
SEFSC	CFMC	Caribbean spiny lobster - St. Croix	2009	2	New	No	Assessment planned for FY16 Delayed
SEFSC	CFMC	Caribbean spiny lobster - St. Thomas/St. John	2009	2	New	No	Assessment planned for FY16 Delayed

			Last Assessment				
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
SEFSC	CFMC	Queen conch - Caribbean	2009	2	New	No	
SEFSC	CFMC	Triggerfish and Filefish Complex - Puerto Rico	2013	-1	Benchmark	No	Assessment of queen triggerfish in the Caribbean
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Croix	2013	-1	Benchmark	No	Assessment of queen triggerfish in the Caribbean
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Thomas/St. John	2013	-1	Benchmark	No	Assessment of queen triggerfish in the Caribbean, Assessment planned for FY16 Delayed
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	2017	4	Full Update	Yes	
SEFSC	GMFMC	Gag - Gulf of Mexico	2014	4	Benchmark	Yes	
SEFSC	GMFMC	Gray triggerfish - Gulf of Mexico	2015	4	Full Update	Yes	
SEFSC	GMFMC	Greater amberjack - Gulf of Mexico	2014	4	Benchmark	Yes	
SEFSC	GMFMC	Hogfish - Eastern Gulf of Mexico	2014	4	Benchmark	Yes	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	2017	4	Full Update	Yes	
SEFSC	GMFMC	Red grouper - Gulf of Mexico	2016	4	Benchmark	No	
SEFSC	GMFMC	Red snapper - Gulf of Mexico	2015	4	Full Update	Yes	
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	2017	1	Full Update	No	
SEFSC	GMFMC	Tilefish - Gulf of Mexico	2011	4	Benchmark	No	
SEFSC	GMFMC	Vermilion snapper - Gulf of Mexico	2016	4	Full Update	Yes	
SEFSC	GMFMC	White shrimp - Gulf of Mexico	2017	4	Full Update	Yes	
SEFSC	GMFMC	Yellowedge grouper - Gulf of Mexico	2010	4	Benchmark	No	
SEFSC	HMS	Atlantic sharpnose shark - Atlantic	2013	4	Full Update	Yes	Partial acceptance status determinations only
SEFSC	HMS	Atlantic sharpnose shark - Gulf of Mexico	2013	4	Full Update	Yes	Partial acceptance status determinations only
SEFSC	HMS	Blacknose shark - Atlantic	2011	4	Full Update	No	
SEFSC	HMS	Blacknose shark - Gulf of Mexico	2011	-4	Full Update	No	Assessment previously counted as adaquate
SEFSC	HMS	Blacktip shark - Atlantic	2006	-4	Full Update	No	
SEFSC	HMS	Blacktip shark - Gulf of Mexico	2012	4	Full Update	Yes	
SEFSC	HMS	Blue shark - Atlantic	2016	4	Benchmark	No	
SEFSC	HMS	Bonnethead - Atlantic	2013	-4	Full Update	No	Rejected results too uncertain to be considered adaquate

			Last Assessment				
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
SEFSC	HMS	Bonnethead - Gulf of Mexico	2013	-4	Full Update	No	Rejected results too uncertain to be considered adaquate
SEFSC	HMS	Dusky shark - Atlantic	2016	4	Full Update	Yes	
SEFSC	HMS	Finetooth shark - Atlantic	2007	3	Benchmark	No	
SEFSC	HMS	Porbeagle - Atlantic	2009	4	New	No	Asmt sunset at end of FY15
SEFSC	HMS	Sandbar shark - Atlantic	2011	4	Full Update	No	
SEFSC	HMS	Scalloped Hammerhead Complex - Atlantic	2009	3	Unknown	No	Asmt sunset at end of FY15
SEFSC	HMS	Shortfin mako - Atlantic	2012	4	Benchmark	Yes	
SEFSC	SAFMC	Black grouper - Southern Atlantic Coast	2010	4	Benchmark	No	Asmt sunset at end of FY15
SEFSC	SAFMC	Black sea bass - Southern Atlantic Coast	2013	4	Full Update	Yes	
SEFSC	SAFMC	Blueline tilefish - Southern Atlantic Coast	2013	4	Benchmark	Yes	
SEFSC	SAFMC	Brown rock shrimp - Southern Atlantic Coast	2017	1	Full Update	No	
SEFSC	SAFMC	Brown shrimp - Southern Atlantic Coast	2017	1	Full Update	No	
SEFSC	SAFMC	Dolphinfish - Southern Atlantic Coast	2000	2	Unknown	No	
SEFSC	SAFMC	Gag - Southern Atlantic Coast	2014	4	Full Update	Yes	
SEFSC	SAFMC	Gray triggerfish - Southern Atlantic Coast	2016	-4	Benchmark	No	2016 Benchmark was rejected due to poor model fit. 2001 Was last accepted assessment
SEFSC	SAFMC	Greater amberjack - Southern Atlantic Coast	2008	4	Benchmark	No	
SEFSC	SAFMC	Hogfish - Southeast Florida	2014	4	Benchmark	Yes	
SEFSC	SAFMC	Pink shrimp - Southern Atlantic Coast	2017	1	Full Update	No	
SEFSC	SAFMC	Red grouper - Southern Atlantic Coast	2010	4	Benchmark	No	Asmt sunset at end of FY15. Next asmt has been rescheduled for FY2017
SEFSC	SAFMC	Red porgy - Southern Atlantic Coast	2012	4	Full Update	Yes	
SEFSC	SAFMC	Red snapper - Southern Atlantic Coast	2016	4	Benchmark	Yes	

			Last Assessment				
Science Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Fiscal Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes
SEFSC	SAFMC	Snowy grouper - Southern Atlantic Coast	2014	4	Unknown	Yes	
SEFSC	SAFMC	Speckled hind - Southern Atlantic Coast	2001	2	Unknown	No	
SEFSC	SAFMC	Tilefish - Southern Atlantic Coast	2016	4	Full Update	Yes	
SEFSC	SAFMC	Vermilion snapper - Southern Atlantic Coast	2012	4	Full Update	Yes	
SEFSC	SAFMC	Warsaw grouper - Southern Atlantic Coast	2001	2	Unknown	No	
SEFSC	SAFMC	White shrimp - Southern Atlantic Coast	2017	1	Full Update	No	
SEFSC	SAFMC/ GMFMC	Caribbean spiny lobster - Southern Atlantic Coast / Gulf of Mexico	2010	(-4)	Full Update	No	Rejected results too uncertain to be considered adaquate
SEFSC	SAFMC/ GMFMC	Cobia - Gulf of Mexico	2013	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	Cobia - Southern Atlantic Coast	2013	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	King mackerel - Gulf of Mexico	2014	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	King mackerel - Southern Atlantic Coast	2014	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	Mutton snapper - Southern Atlantic Coast / Gulf of Mexico	2015	4	Full Update	Yes	
SEFSC	SAFMC/ GMFMC	Spanish mackerel - Gulf of Mexico	2013	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	Spanish mackerel - Southern Atlantic Coast	2013	4	Benchmark	Yes	
SEFSC	SAFMC/ GMFMC	Yellowtail snapper - Southern Atlantic Coast / Gulf of Mexico	2012	4	Benchmark	Yes	
SWFSC	PFMC	Northern anchovy - Southern Pacific Coast	1995	0	Unknown	No	
SWFSC	PFMC	Opalescent inshore squid - Pacific Coast	2006	2	New	No	
SWFSC	PFMC	Pacific chub mackerel - Pacific Coast	2015	4	Benchmark	Yes	
SWFSC	PFMC	Pacific sardine - Pacific Coast	2016	5	Full Update	Yes	

			Last Assessment				
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Center(s) <sup>1</sup>	Jurisdiction <sup>2</sup>	Stock	Year	Level <sup>3</sup>	Туре	Adequate?	Assessment Notes

#### **Footnotes**

<sup>&</sup>lt;sup>1</sup> 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).

<sup>&</sup>lt;sup>2</sup>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).

<sup>&</sup>lt;sup>3</sup>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 <a href="http://www.st.nmfs.noaa.gov/StockAssessment/index.html">http://www.st.nmfs.noaa.gov/StockAssessment/index.html</a>). A negative level indicates that an assessment was attempted at that level of complexity, but the effort was not accepted in its technical review.

