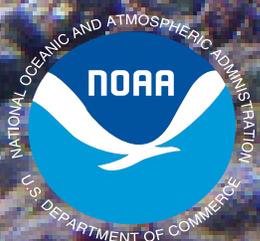
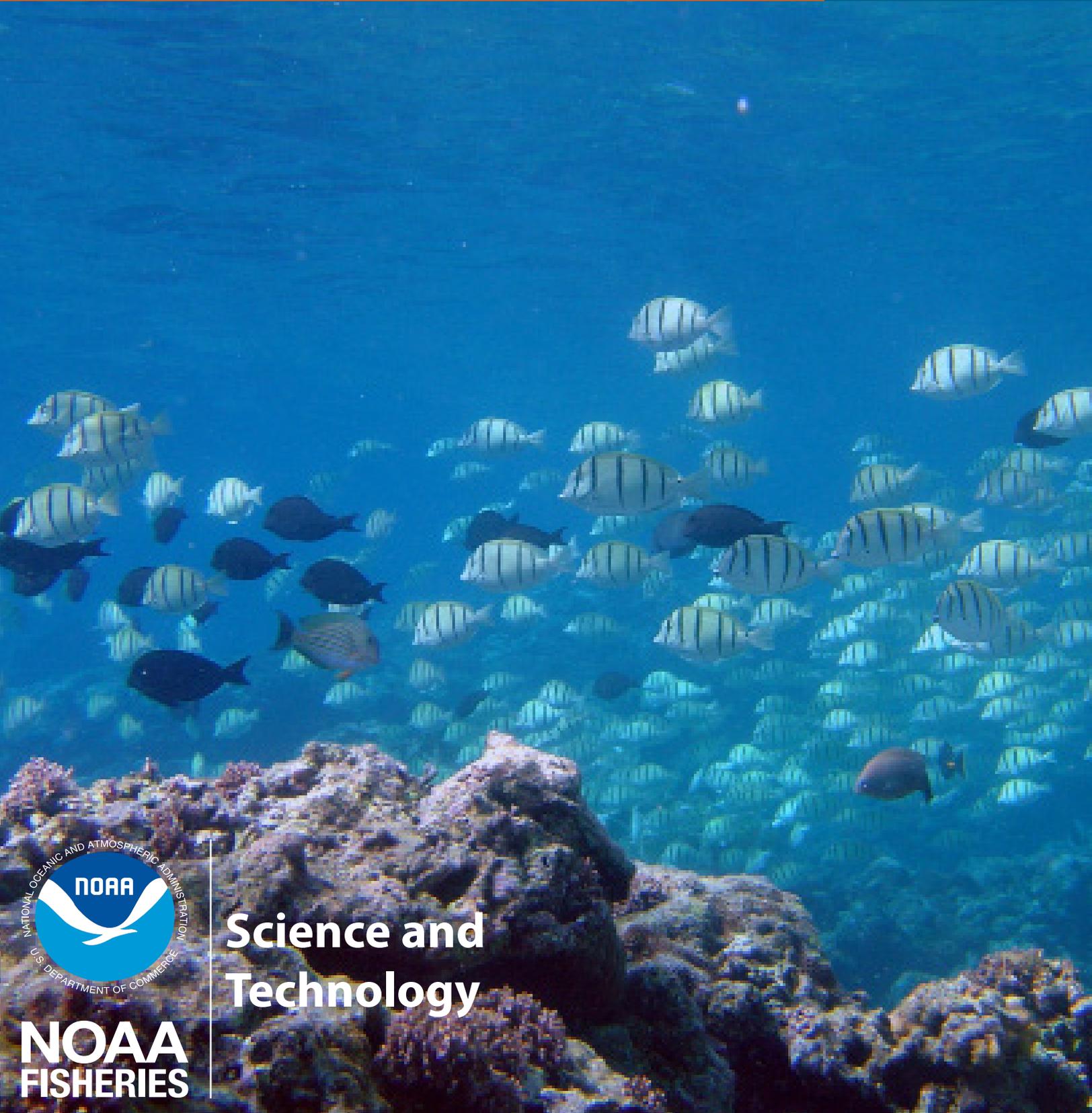


Fish Assessment Report

FY 2018 Quarter 4 Update

4



NOAA
FISHERIES

**Science and
Technology**

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 summarizes NOAA Fisheries assessment activities for federally managed fish stocks for fiscal year 2018, with a focus on Quarter 4. For more information on stock assessments and how they are conducted, please see the FAQ's on Page 7 of this report.

NOAA Fisheries works with state and federal partners in each management area to conduct assessments of fish stocks or stock complexes, selecting assessment level, type, and frequency based on a variety of factors such as fishery importance, ecosystem importance, stock biology, stock status, 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. NOAA Fisheries strives to maintain adequate assessments (defined on page 7) for all FSSI stocks and completed 97 assessments of FSSI stocks in FY 2018 in pursuit of this goal. Although the percentage of stocks with adequate assessments decreased in FY 2018 (Figure 1), we expect gradual improvement moving forward as more regions get into a rhythm of conducting operational assessments according to a prioritized schedule.

There are 275 additional non-FSSI stocks and stock complexes under federal management. While there is often a priority for assessing FSSI stocks, stock status and ACLs must be specified for non-FSSI stocks as well. NOAA Fisheries is working to expand the data and techniques available for conducting stock assessments of non-FSSI stocks, which often face data limitations that prohibit robust analyses. In FY 2018 NOAA Fisheries completed 101 assessments of non-FSSI stocks, complexes, or stock complex members.

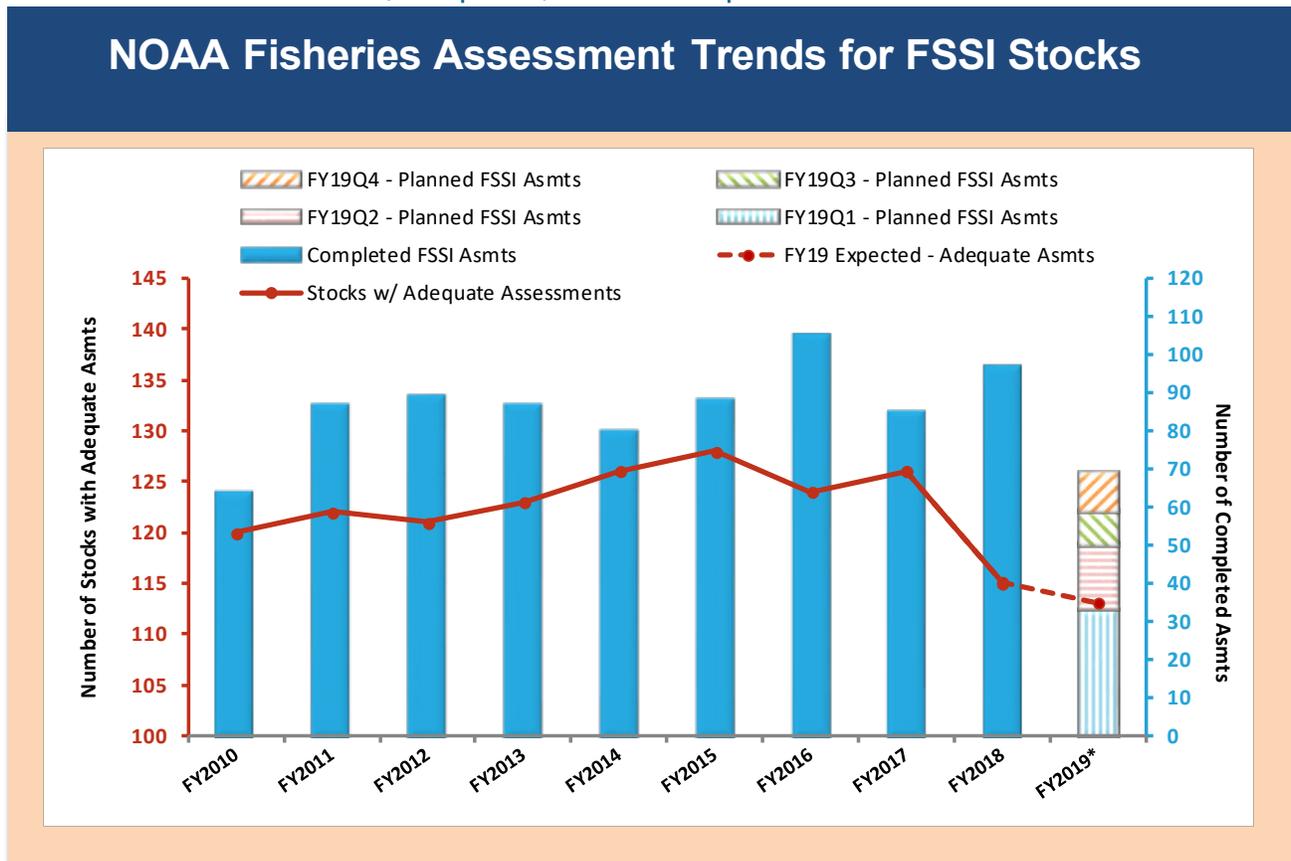


Figure 1: Recent and projected assessment activity for federally managed stocks in the Fish Stock Sustainability Index (FSSI). At the end of FY 2018, 115 of 199 (57.8 percent) FSSI stocks had adequate assessments. This dip in the number of stocks with adequate assessments was expected because 13 assessments are now too old to be considered adequate. In FY 2019, program performance levels will likely decrease, to 112 of 199 (56.3 percent), because an additional 10 stock assessments will become inadequate due to their age. This decreasing trend in the number of FSSI stocks with adequate assessments is, in-part, a side-effect of NOAA Fisheries' recent increased focus on conducting first-time assessments of non-FSSI stocks.

*Planned

Completed Assessments and Surveys

NOAA Fisheries completed 27 stock assessments in Quarter 4 (Table 1). Thirteen were of FSSI stocks. In total, NOAA Fisheries completed 198 stock assessments in FY 2018 its second highest annual total.

During Quarter 4, the Northeast region completed 13 stock assessments, all of FSSI stocks. They included benchmark assessments of Atlantic herring and Sea scallop off the Northwestern Atlantic Coast consisting of a full analysis and review of each stock's condition, consideration of new data sources and new or improved assessment models, and comprehensive scientific reviews. The region also completed update assessments of Georges Bank and Southern New England skate stocks, the Atlantic Coast Spiny dogfish stock, and Eastern Georges Banks Atlantic cod, Haddock, and Yellowtail flounder stocks in collaboration with Canadian partners on the Transboundary Resource Assessment Committee. The skate and Spiny dogfish assessments were added to the FY 2018 schedule because they were completed early and involved expanded analysis, respectively.

The Southeast region conducted stock assessments of Atlantic Bigeye tuna and Blue marlin during Quarter 4. Both are non-FSSI, highly migratory species (HMS) whose management is overseen by the International Commission for the Conservation of Atlantic Tunas (ICCAT). An assessment of Gulf of Mexico Blacktip shark was delayed to FY 2019 because a dataset needed for the assessment took longer than expected to update.

The West Coast region completed four non-FSSI stock assessments during Quarter 4. The Southwest Fisheries Science Center assessed Thresher shark in the North Pacific. The region also participated in Inter-American Tropical Tuna Commission (IATTC) assessments of Eastern Pacific Yellowfin tuna, Eastern Pacific Skipjack tuna, and Pacific Bluefin tuna. The assessments of Thresher shark and Skipjack tuna were additions to the FY 2018 schedule.

The Western Pacific region participated in non-FSSI stock assessments of Albacore in the South Pacific,

Silky shark and Swordfish in the Western and Central Pacific, and Shortfin mako in the North Pacific during Quarter 4. These are all HMS stocks managed by the Western and Central Pacific Fisheries Commission (WCPFC). The WCPFC assessment of Silky shark is the stock's first. The Albacore assessment was added to the FY 2018 schedule.

The Alaska region completed four stock assessments during Quarter 4. They were all updates of non-FSSI chinook and coho salmon stocks.

The appendices in this report provide detailed information on the assessments completed in FY 2018 and planned for FY 2019. Appendix A lists FSSI stock assessments completed in FY 2018. Appendix B lists non-FSSI stock assessments completed in FY 2018. Appendix C contains the FY 2019 stock assessment schedule for FSSI and non-FSSI stocks (Table 3). Appendix D lists the adequacy status and most recent assessment of all FSSI stocks. These appendices provide the best information available at the time of reporting and are subject to change. Changes beyond those related to assessment completion made since the last quarterly report are shown in bold, red text.

NOAA Fisheries completed 22 scientific surveys of fish stocks in Quarter 4 (Table 2).

Many stock assessments rely on data collected by NOAA's scientific surveys of fish stocks.¹ NOAA Fisheries completed 22 scientific surveys of fish stocks during Quarter 4 (Table 2).² Of those, 13 were completed on NOAA vessels, and nine were completed using chartered vessels. Overall, 50 surveys were completed in FY 2018. There were 35 surveys conducted aboard NOAA vessels and 15 aboard chartered vessels. There are 53 surveys planned for FY 2019 (Table 4).

For more information on NOAA Fisheries' stock assessments, please visit the NOAA Fisheries' National Stock Assessment Program website.³

1 <https://www.fisheries.noaa.gov/resource/tools/fishery-independent-survey-system-finss>

2 <https://www.st.nmfs.noaa.gov/st4/ifso/faq.html>

3 <https://www.fisheries.noaa.gov/topic/population-assessments>

Completed Assessments and Surveys

Table 1. FY 2018 Completed Assessments

Region	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 4 Highlights
	FSSI	Non - FSSI							
Northeast	23	0	0	0	1	0	13	0	Georges Bank / Southern New England Skates, Eastern Georges Bank Atlantic cod, Haddock, and Yellowtail flounder
Southeast	2	2	9	0	4	1	0	2	Atlantic Bigeye tuna and Blue marlin
West Coast ⁴	3	1	2	63	1	0	0	4	North Pacific Thresher shark, Pacific Bluefin tuna, Eastern Pacific Yellowfin tuna and Skipjack tuna
Western Pacific ⁵	0	2	2	0	0	0	0	4	South Pacific Albacore, Western and Central Pacific Silky shark and Swordfish, North Pacific Shortfin mako
Alaska	34	17	1	0	2	1	0	4	Eastern Far North Migrating Chinook salmon, Coho salmon in Auke Creek, the Berners River, and Hugh Smith Lake
TOTAL	62	22	14	63	8	2	13	14	FY 2018 total / anticipated: 198 / 188

Table 2. FY 2018 Completed Surveys

Region	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 4 Highlights
	NOAA	Charter	NOAA	Charter	NOAA	Charter	NOAA	Charter	
Northeast	2	0	0	0	2	3	3	2	Bottom Trawl, Cooperative Research Longline, EcoMon, Northern Shrimp
Southeast	1	0	0	0	6	1	4	1	SEAMAP Plankton, SEAMAP Reef Fish Camera/Trap, South Atlantic Bight MPA, ASPIRE, SEAMAP Shark/Red Snapper
West Coast ⁴	0	2	3	0	4	1	3	1	Juvenile Rockfish, Northern Juvenile Fish, Hake Ecology
Western Pacific ⁵	1	0	0	0	0	0	1	0	Mariana Archipelago Life History Fisheries Resources Bio-Sampling
Alaska	0	0	2	0	1	0	2	5	EBS Groundfish, Aleutian Islands Bottom Trawl
TOTAL	4	2	5	0	13	5	13	9	FY 2018 total / anticipated: 50 / 55

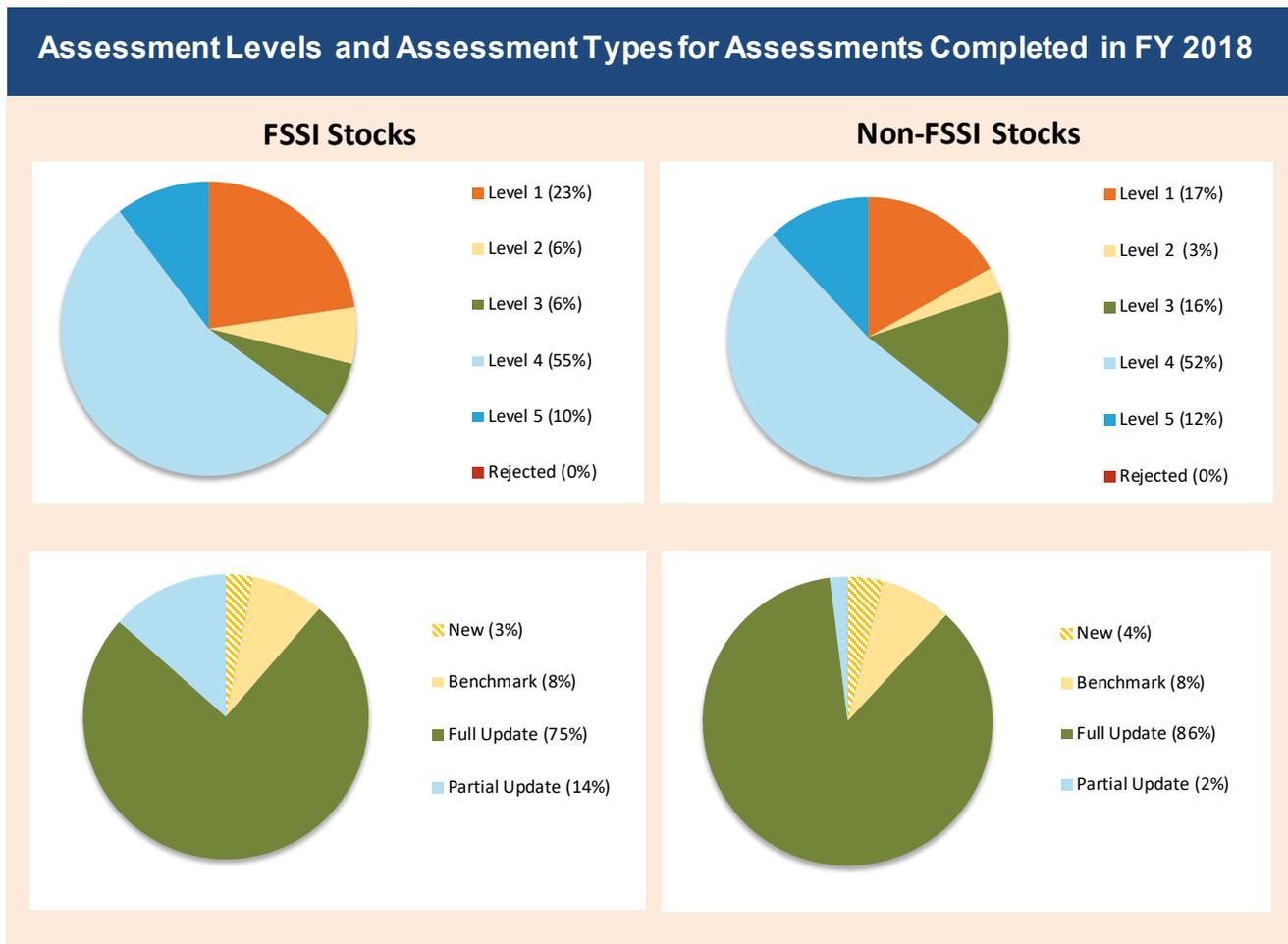
Footnotes:

4 The West Coast region includes assessments conducted by the Northwest and Southwest Fisheries Science Centers and by international commissions for the eastern Pacific Ocean in which those centers participate. This includes Pacific coast groundfish, Pacific coast salmon, and highly migratory species.

5 The Western Pacific region includes assessments conducted by the Pacific Islands Fisheries Science Center, international commissions for the U.S. west coast fisheries for highly migratory species, and Pacific pelagic fisheries of the Western Pacific Regional Ecosystem.

Model Complexity and Assessment Type

Of the 13 FSSI stock assessed during Quarter 4 of FY 2018, two were benchmark assessments and the remaining 11 were full updates. Five provided the full suite of advice to support Annual Catch Limit and Stock Status recommendations, and are considered adequate (level 3 or higher). There were 14 non-FSSI stock assessments completed during Quarter 4; 13 were level 3 or higher (“adequacy” is reported only for FSSI stocks). All assessments not considered adequate utilized an index-based or simple life history approach (level 1 or 2). These assessments provide important science-based advice for the management of data-limited stocks. The figure below shows the level and type of all assessments completed in FY 2018.



Assessment Level	Description
0	No assessment model used, e.g. average recent or historical catch (not considered stock assessments)
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

FY 2019 Planned Assessments and Surveys

Table 3. FY 2019 Planned Assessments

Region	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Highlights
	FSSI	Non - FSSI							
Northeast	0	0	1	0	0	0	6	1	Summer flounder off the Mid-Atlantic Coast
Southeast	2	0	14	0	0	0	0	2	Complete review of Greater amberjack off the Southern Atlantic Coast and new assessments of Caribbean spiny lobster stocks off Puerto Rico, St. Croix, and St. Thomas / St. John
West Coast ⁴	0	0	2	64	5	0	4	1	Cowcod, Longnose skate, and Petrale sole off the Pacific Coast
Western Pacific ⁵	0	0	0	1	3	19	0	3	Bottomfish Multi-species complex assessment off American Samoa, Guam, and the Northern Mariana Islands
Alaska	31	13	0	0	1	1	0	4	Complete Review of Arrowtooth flounder off the Bering Sea and Aleutian Islands
TOTAL	33	13	17	65	9	20	10	11	FY 2019 Anticipated total: 69 FSSI & 109 non-FSSI

Table 4. FY 2019 Planned Surveys

Region	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Subtotal		TOTAL
	NOAA	Charter	NOAA	Charter	NOAA	Charter	NOAA	Charter	NOAA	Charter	
Northeast	1	1	0	0	2	0	3	2	6	3	9
Southeast	1	0	0	0	2	0	4	1	7	1	8
West Coast ⁴	0	2	2	1	2	1	5	5	9	9	18
Western Pacific ⁵	1	0	0	0	1	0	1	0	3	0	3
Alaska	0	0	2	0	2	1	2	8	6	9	15
TOTAL	3	3	4	1	9	2	15	16	31	22	53

Footnotes:

4 The West Coast region includes assessments conducted by the Northwest and Southwest Fisheries Science Centers and by international commissions for the eastern Pacific Ocean in which those centers participate. This includes Pacific coast groundfish, Pacific coast salmon, and highly migratory species.

5 The Western Pacific region includes assessments conducted by the Pacific Islands Fisheries Science Center and international commissions for the U.S. west coast fisheries for highly migratory species and Pacific pelagic fisheries of the Western Pacific Regional Ecosystem.

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 and fisheries 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 the Next Generation Stock Assessment Improvement Plan.

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?

<https://www.fisheries.noaa.gov/topic/population-assessments/fish-stocks>

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

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

Alaska Fisheries Science Center --

<http://www.afsc.noaa.gov/>

Northwest Fisheries Science Center --

<https://www.nwfsc.noaa.gov/>

Southwest Fisheries Science Center --

<https://swfsc.noaa.gov/>

Pacific Island Fisheries Science Center --

<http://www.pifsc.noaa.gov/>

Southeast Fisheries Science Center --

<http://www.sefsc.noaa.gov/>

Northeast Fisheries Science Center --

<http://www.nefsc.noaa.gov/>

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Appendix A. Assessment activity for stocks and stock complexes included on the FSSI by quarter for FY2018.

Completed Assessments for FSSI Stocks - FY2018 Quarter 1 (October - December, 2017)						
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	4	Full Update	Y	
AFSC	NPFMC	Arrowtooth flounder - Bering Sea / Aleutian Islands	5	Partial Update	Y	
AFSC	NPFMC	Arrowtooth flounder - Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Atka mackerel - Bering Sea / Aleutian Islands	4	Full Update	Y	
AFSC	NPFMC	Bering Sea / Aleutian Islands Blackspotted and Rougheye Rockfish Complex	4	Partial Update	Y	
AFSC	NPFMC	Flathead sole - Bering Sea / Aleutian Islands	5	Full Update	Y	
AFSC	NPFMC	Northern rock sole - Bering Sea / Aleutian Islands	4	Partial Update	Y	
AFSC	NPFMC	Alaska skate - Bering Sea / Aleutian Islands	4	Partial Update	Y	On initial schedule as non-FSSI
AFSC	NPFMC	Blue king crab - Pribilof Islands	1	Full Update	N	
AFSC	NPFMC	Blue king crab - Saint Matthew Island	4	Full Update	Y	
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	4	Partial Update	Y	On initial schedule as non-FSSI
AFSC	NPFMC	Flathead sole - Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Greenland halibut - Bering Sea / Aleutian Islands	4	Partial Update	Y	
AFSC	NPFMC	Gulf of Alaska Blackspotted and Rougheye Rockfish Complex	4	Full Update	Y	
AFSC	NPFMC	Dover sole - Gulf of Alaska	4	Partial Update	Y	
AFSC	NPFMC	Yelloweye rockfish - Gulf of Alaska	3	Partial Update	Y	Not on initial schedule
AFSC	NPFMC	Northern rock sole - Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Shortspine thornyhead - Gulf of Alaska	3	Partial Update	Y	Not on initial schedule
AFSC	NPFMC	Northern rockfish - Bering Sea / Aleutian Islands	4	Partial Update	Y	
AFSC	NPFMC	Northern rockfish - Western / Central Gulf of Alaska	4	Partial Update	Y	
AFSC	NPFMC	Pacific cod - Bering Sea	4	Full Update	Y	
AFSC	NPFMC	Pacific cod - Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	4	Partial Update	Y	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	4	Full Update	Y	

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Completed Assessments for FSSI Stocks - FY2018 Quarter 1 (October - December, 2017)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
AFSC	NPFMC	Red king crab - Bristol Bay	4	Full Update	Y	
AFSC	NPFMC	Red king crab - Pribilof Islands	1	Full Update	N	
AFSC	NPFMC	Rex sole - Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	5	Full Update	Y	
AFSC	NPFMC	Snow crab - Bering Sea	4	Full Update	Y	
AFSC	NPFMC	Southern Tanner crab - Bering Sea	4	Full Update	Y	
AFSC	NPFMC	Walleye pollock - Aleutian Islands	4	Partial Update	Y	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	4	Full Update	Y	
AFSC	NPFMC	Walleye pollock - Western / Central Gulf of Alaska	4	Full Update	Y	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	5	Full Update	Y	
NEFSC	NEFMC	Atlantic halibut - Northwestern Atlantic Coast	1	Benchmark	N	Omitted from Q1 report
NEFSC	NEFMC	Acadian redfish - Gulf of Maine / Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	American plaice - Gulf of Maine / Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Atlantic cod - Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Atlantic cod - Gulf of Maine	4	Full Update	Y	
NEFSC	NEFMC	Atlantic wolffish - Gulf of Maine / Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Haddock - Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Haddock - Gulf of Maine	4	Full Update	Y	
NEFSC	NEFMC	Ocean pout - Northwestern Atlantic Coast	1	Full Update	N	
NEFSC	NEFMC	Pollock - Gulf of Maine / Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Red hake - Gulf of Maine / Northern Georges Bank	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Red hake - Southern Georges Bank / Mid-Atlantic	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Silver hake - Gulf of Maine / Northern Georges Bank	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Silver hake - Southern Georges Bank / Mid-Atlantic	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	White hake - Gulf of Maine / Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Windowpane - Gulf of Maine / Georges Bank	1	Full Update	N	
NEFSC	NEFMC	Windowpane - Southern New England / Mid-Atlantic	1	Full Update	N	
NEFSC	NEFMC	Winter flounder - Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Winter flounder - Gulf of Maine	1	Full Update	N	

National Marine Fisheries Service

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Completed Assessments for FSSI Stocks - FY2018 Quarter 1 (October - December, 2017)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
NEFSC	NEFMC	Winter flounder - Southern New England / Mid-Atlantic	4	Full Update	Y	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	1	Full Update	N	
NEFSC	NEFMC	Yellowtail flounder - Cape Cod / Gulf of Maine	4	Full Update	Y	
NEFSC	NEFMC	Yellowtail flounder - Southern New England / Mid-Atlantic	4	Full Update	Y	
NW / SW	PFMC	Pacific ocean perch - Pacific Coast	4	Benchmark	Y	
NW / SW	PFMC	Starry flounder - Northern Pacific Coast	1	New	N	
NW / SW	PFMC	Starry flounder - Southern Pacific Coast	1	New	N	
SEFSC	HMS	Shortfin mako - North Atlantic	4	Benchmark	Y	
SEFSC	SAFMC	Blueline tilefish - Southern Atlantic Coast	4	Benchmark	Y	

Completed Assessments for FSSI Stocks - FY2018 Quarter 2 (January - March, 2018)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
AFSC	NPFMC	Red king crab - Norton Sound	4	Full Update	Y	
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (fall)	3	Full Update	Y	
NW/SW	PFMC	Chinook salmon - Northern California Coast: Klamath (fall)	4	Full Update	Y	
PIFSC	WPFMC	Main Hawaiian Islands Deep 7 Bottomfish Multi-species Complex	3	Benchmark	Y	
PIFSC	WPFMC	Opakapaka - Main Hawaiian Islands	3	New	Y	Not on initial schedule
SEFSC	HMS	Sandbar shark - Atlantic and Gulf of Mexico	4	Standard	Y	
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	4	Full Update	Y	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	4	Full Update	Y	
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	1	Full Update	N	
SEFSC	GMFMC	White shrimp - Gulf of Mexico	4	Full Update	Y	
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	

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Completed Assessments for FSSI Stocks - FY2018 Quarter 3 (April - June, 2018)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
AFSC	NPFMC	Golden king crab - Eastern Aleutian Islands	4	Full Update	Y	
AFSC	NPFMC	Golden king crab - Western Aleutian Islands	4	Full Update	Y	
NEFSC	MAFMC	Atlantic mackerel - Gulf of Maine / Cape Hatteras	4	Benchmark	Y	
SEFSC	GMFMC	Red snapper - Gulf of Mexico	4	Standard	Y	
SEFSC	SAFMC	Black sea bass - Southern Atlantic Coast	4	Full Update	Y	
SEFSC	SAFMC	Hogfish - Eastern Gulf of Mexico	4	Full Update	Y	Stock region changed, originally listed as Southeast Florida
SEFSC	SAFMC	Vermilion snapper - Southern Atlantic Coast	4	Full Update	Y	
SWFSC	PFMC	Pacific sardine - Pacific Coast	4	Full Update	Y	

Completed Assessments for FSSI Stocks - FY2018 Quarter 4 (July - September, 2018)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Adequate	Notes
NEFSC	NEFMC	Atlantic cod - Eastern Georges bank	4	Full Update	Y	
NEFSC	NEFMC	Atlantic herring - Northwestern Atlantic Coast	5	Benchmark	Y	
NEFSC	NEFMC	Barndoor skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Clearnose skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Haddock - Eastern Georges Bank	4	Full Update	Y	
NEFSC	NEFMC	Little skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Rosette skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Sea scallop - Northwestern Atlantic Coast	4	Benchmark	Y	
NEFSC	NEFMC	Smooth skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Thorny skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Winter skate - Georges Bank / Southern New England	1	Full Update	N	Not on initial schedule
NEFSC	NEFMC	Yellowtail flounder - Eastern Georges Bank	1	Full Update	N	
NEFSC	NEFMC / MAFMC	Spiny dogfish - Atlantic Coast	4	Full Update	Y	On initial schedule as a level - 0

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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.

4 Data Updates are not counted as stock assessments.

* Changes in the assessment schedule are indicated by red font.

National Marine Fisheries Service
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Appendix B. Assessment activity for non-FSSI stocks, stock complexes and complex members in FY2018.

Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 1 (October - December, 2017)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
AFSC	NPFMC	Coho salmon - Auke Creek	4	Full Update	
AFSC	NPFMC	Coho salmon - Berners River	4	Full Update	
AFSC	NPFMC	Coho salmon - Hugh Smith Lake	4	Full Update	
AFSC	NPFMC	Chinook salmon - Eastern North Pacific Far North Migrating	4	Full Update	
AFSC	NPFMC	Bering Sea / Aleutian Islands Other Skates Complex	3	Partial Update	Not on initial schedule
AFSC	NPFMC	Atka mackerel - Gulf of Alaska	0	Full Update	Level 1 on initial schedule
AFSC	NPFMC	Bering Sea / Aleutian Islands Sculpin Complex	3	Partial Update	
AFSC	NPFMC	Giant octopus - Gulf of Alaska	1	Full Update	
AFSC	NPFMC	Gulf of Alaska Other Rockfish Complex	0	NONE	Reported as level 3 assessment in Q1 in error
AFSC	NPFMC	Gulf of Alaska Sculpin Complex	3	Full Update	
AFSC	NPFMC	Rock sole - Gulf of Alaska	4	Full Update	Not on initial schedule
AFSC	NPFMC	Gulf of Alaska Other Shallow Water Flatfish Complex	3	Full Update	Not on initial schedule
AFSC	NPFMC	Gulf of Alaska Skate Complex	3	Full Update	
AFSC	NPFMC	Big skate - Gulf of Alaska	3	Full Update	Not on initial schedule
AFSC	NPFMC	Gulf of Alaska Squid Complex	0	Full Update	Level 1 on initial schedule
AFSC	NPFMC	Kamchatka flounder - Bering Sea / Aleutian Islands	4	Full Update	
AFSC	NPFMC	Longnose skate - Gulf of Alaska	3	Full Update	Not on initial schedule
AFSC	NPFMC	Pacific cod - Aleutian Islands	3	Full Update	
AFSC	NPFMC	Red king crab - Western Aleutian Islands	0	Full Update	Not on initial schedule
AFSC	NPFMC	Shortraker rockfish - Gulf of Alaska	3	Full Update	
AFSC	NPFMC	Walleye pollock - Southeast Gulf of Alaska	3	Full Update	
NW / SW	PFMC	Cabazon - Washington	1	New	This stock belongs to the Pacific Coast Other Groundfish Complex
PIFSC	HMS	Bigeye tuna - Western and Central Pacific Ocean	4	Full Update	
PIFSC	HMS	Bigeye thresher - Pacific	2	New	On initial schedule for Q2
SEFSC	HMS	Bluefin tuna - Northwest Atlantic	4	Full Update	Not on initial schedule
SEFSC	HMS	Swordfish - North Atlantic	3	Full Update	Not on initial schedule

Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 2 (January - March, 2018)

Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
AFSC	IPHC	Pacific halibut - Pacific Coast / Alaska	4	Full Update	Not counted -- international assessment
NW/SW	PFMC	Pacific hake - Pacific Coast	4	Benchmark	

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Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 2 (January - March, 2018)					
Science Center(s)¹	Jurisdiction²	Stock	Asmt Level³	Asmt Type⁴	Notes on Assessment
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (spring)	1	Full Update	
NW/SW	PFMC	Chinook salmon - California Central Valley: Sacramento (winter)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Lower River Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Lower River Hatchery (spring)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Mid-River Bright Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: North Lewis (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Snake (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Snake (spring/summer)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Spring Creek Hatchery (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River (spring)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River (summer)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper River Bright (fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Columbia River Basin: Upper Willamette (spring)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Northern California Coast: Eel, Mattole, and Mad (fall/spring) (<i>California Coastal</i>)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Oregon Coast: Central and Northern	3	Full Update	
NW/SW	PFMC	Chinook salmon - Oregon Coast: Southern	3	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Cedar (summer/fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Eastern Strait of Juan de Fuca (summer/fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Green (summer/fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Mid Hood Canal (summer/fall)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Nisqually (summer/fall)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Nooksack (spring early)	4	Full Update	

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Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 2 (January - March, 2018)					
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
NW/SW	PFMC	Chinook salmon - Puget Sound: Puyallup (summer/fall)	3	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Skagit (spring)	3	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Skagit (summer/fall)	5	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Skokomish (summer/fall)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Snohomish (summer/fall)	5	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: Stillaguamish (summer/fall)	5	Full Update	
NW/SW	PFMC	Chinook salmon - Puget Sound: White River (spring)	3	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Grays Harbor (fall)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Grays Harbor (spring)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Hoh (fall)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Hoh (spring/summer)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Hoko (summer/fall)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Queets (fall)	5	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Queets (spring/summer)	2	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Quillayute (fall)	2	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Quillayute (spring/summer)	1	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Quinault Fall (hatchery)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Willapa Bay Fall (hatchery)	4	Full Update	
NW/SW	PFMC	Chinook salmon - Washington Coast: Willapa Bay Fall (natural)	4	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Central California Coast	1	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (early hatchery)	4	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (late hatchery)	4	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Columbia (natural)	4	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Northern California	1	Full Update	

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Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 2 (January - March, 2018)					
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Oregon Coastal (hatchery)	1	Full Update	
NW/SW	PFMC	Coho salmon - Oregon Production Index Area: Oregon Coastal (natural)	5	Full Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Hood Canal	4	Full Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Skagit	5	Full Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Snohomish	4	Full Update	
NW/SW	PFMC	Coho salmon - Puget Sound: South Puget Sound (hatchery)	4	Full Update	
NW/SW	PFMC	Coho salmon - Puget Sound: Stillaguamish	4	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Grays Harbor	5	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Hoh	5	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Queets	5	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Quillayute (fall)	4	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Quillayute (summer)	4	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Quinalt	1	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Strait of Juan de Fuca	5	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Willapa Bay	5	Full Update	
NW/SW	PFMC	Coho salmon - Washington Coast: Willapa Bay (natural)	5	Full Update	
Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 3 (April - June, 2018)					
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
AFSC	NPFMC	Weathervane scallop - Alaska	1	Full Update	
SEFSC	GMFMC	Gray snapper - Gulf of Mexico	4	New	
Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 4 (July - September, 2018)					
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
AFSC	NPFMC	Coho salmon - Auke Creek	4	Full Update	
AFSC	NPFMC	Coho salmon - Berners River	4	Full Update	
AFSC	NPFMC	Coho salmon - Hugh Smith Lake	4	Full Update	
AFSC	NPFMC	Chinook salmon - Eastern North Pacific Far North Migrating	4	Full Update	
PIFSC	WPFMC	Albacore - South Pacific	4	Benchmark	Not on initial schedule
PIFSC	WPFMC	Silky shark - Western and Central Pacific	4	New	
SEFSC	HMS	Bigeye tuna - Atlantic	4	Benchmark	Not on initial schedule

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Completed Assessments for Non-FSSI Stocks - FY2018 Quarter 4 (July - September, 2018)					
Science Center(s) ¹	Jurisdiction ²	Stock	Asmt Level ³	Asmt Type ⁴	Notes on Assessment
SEFSC	HMS	Blue marlin - Atlantic	4	Benchmark	Not on initial schedule
SW/PI	PFMC / WPFMC	Pacific bluefin tuna - Pacific	4	Benchmark	
SW/PI	PFMC / WPFMC	Shortfin mako - North Pacific	4	Benchmark	
SW/PI	PFMC / WPFMC	Skipjack tuna - Eastern Pacific	1	Full Update	Not on initial schedule
SW/PI	PFMC / WPFMC	Swordfish - Western and Central Pacific	4	Benchmark	
SW/PI	PFMC / WPFMC	Thresher shark - North Pacific	4	Benchmark	Not on initial schedule
SW/PI	PFMC / WPFMC	Yellowfin tuna - Eastern Pacific	4	Full Update	

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.

4 Data Updates are not counted as stock assessments.

* Changes in the assessment schedule are indicated by red font.

Appendix C. Planned assessments for FSSI and non-FSSI stocks for FY 2019. Information is best available provided by NOAA Fisheries Science Centers and subject to change.

Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 1 (October - December, 2018)						
Science Center(s)¹	Jurisdiction²	FSSI / Non-FSSI³	Stock	Model Class⁴	Planned Asmt Type⁵	Notes
AFSC	NPFMC	FSSI	Alaska plaice - Bering Sea / Aleutian Islands	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Alaska skate - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	FSSI	Arrowtooth flounder - Bering Sea / Aleutian Islands	6	Operational Assessment	CIE Reviewed
AFSC	NPFMC	FSSI	Arrowtooth flounder - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Atka mackerel - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	FSSI	Bering Sea / Aleutian Islands Blackspotted and Rougheye Rockfish Complex	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Bering Sea / Aleutian Islands Other Flatfish Complex	3	Stock Monitoring Analysis	
AFSC	NPFMC	Non-FSSI	Bering Sea / Aleutian Islands Other Rockfish Complex	3	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Bering Sea / Aleutian Islands Other Skates Complex	3	Operational Assessment	
AFSC	NPFMC	FSSI	Blue king crab - Saint Matthew Island	5	Operational Assessment	
AFSC	NPFMC	FSSI	Dover sole - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Dusky rockfish - Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	FSSI	Flathead sole - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	FSSI	Flathead sole - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	Non-FSSI	Giant octopus - Bering Sea / Aleutian Islands	2	Operational Assessment	
AFSC	NPFMC	FSSI	Greenland halibut - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	FSSI	Gulf of Alaska Blackspotted and Rougheye Rockfish Complex	6	Stock Monitoring Analysis	
AFSC	NPFMC	Non-FSSI	Gulf of Alaska Other Deepwater Flatfish Complex	0	Stock Monitoring Analysis	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 1 (October - December, 2018)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
AFSC	NPFMC	Non-FSSI	Gulf of Alaska Other Shallow Water Flatfish Complex	3	Stock Monitoring Analysis	
AFSC	NPFMC	Non-FSSI	Gulf of Alaska Shark Complex	3	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Kamchatka flounder - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Northern rock sole - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Northern rock sole - Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	FSSI	Northern rockfish - Bering Sea / Aleutian Islands	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Northern rockfish - Western / Central Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Pacific cod - Aleutian Islands	3	Operational Assessment	
AFSC	NPFMC	FSSI	Pacific cod - Bering Sea	6	Operational Assessment	
AFSC	NPFMC	FSSI	Pacific cod - Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	FSSI	Pacific ocean perch - Bering Sea / Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	FSSI	Pacific ocean perch - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Red king crab - Bristol Bay	5	Operational Assessment	
AFSC	NPFMC	FSSI	Rex sole - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Rock sole - Gulf of Alaska	6	Stock Monitoring Analysis	
AFSC	NPFMC	FSSI	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Shortraker rockfish - Bering Sea / Aleutian Islands	3	Operational Assessment	
AFSC	NPFMC	FSSI	Shortspine thornyhead - Gulf of Alaska	3	Operational Assessment	
AFSC	NPFMC	FSSI	Snow crab - Bering Sea	5	Operational Assessment	
AFSC	NPFMC	FSSI	Southern Tanner crab - Bering Sea	5	Operational Assessment	
AFSC	NPFMC	FSSI	Walleye pollock - Aleutian Islands	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Walleye pollock - Bogoslof	3	Operational Assessment	
AFSC	NPFMC	FSSI	Walleye pollock - Eastern Bering Sea	6	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 1 (October - December, 2018)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
AFSC	NPFMC	Non-FSSI	Walleye pollock - Southeast Gulf of Alaska	3	Operational Assessment	
AFSC	NPFMC	FSSI	Walleye pollock - Western / Central Gulf of Alaska	6	Operational Assessment	
AFSC	NPFMC	FSSI	Yelloweye rockfish - Gulf of Alaska	3	Operational Assessment	
AFSC	NPFMC	FSSI	Yellowfin sole - Bering Sea / Aleutian Islands	6	Operational Assessment	
SEFSC	HMS	FSSI	Blacktip shark - Gulf of Mexico	6	Operational Assessment	Delayed from FY18
SEFSC	SAFMC	FSSI	Greater Amberjack - Southern Atlantic Coast	6	Operational Assessment	CIE Reviewed

Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 2 (January - March, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
INT	Non-Federal	Non-FSSI	Pacific Halibut - Pacific Coast	6	Operational Assessment	
NEFSC	NEFMC / MAFMC	FSSI	Summer flounder - Mid-Atlantic Coast	6	Operational Assessment	CIE Reviewed
NWFSC / SWFSC	PFMC	FSSI	Chinook salmon - California Central Valley: Sacramento River Fall	3	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - California Central Valley: Sacramento River Spring	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - California Central Valley: Sacramento River Winter	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Lower River Hatchery Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Lower River Hatchery Spring	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Mid-River Bright Hatchery Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: North Lewis River Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Snake River Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Snake River Spring/Summer	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Spring Creek Hatchery Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper River Bright Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper River Spring	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper River Summer	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Columbia River Basin: Upper Willamette Spring	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Northern California Coast: California Coastal	2	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Chinook salmon - Northern California Coast: Klamath River Fall	6	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 2 (January - March, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Oregon Coast: Central and Northern Oregon	3	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Oregon Coast: Southern Oregon	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Cedar River Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Eastern Strait of Juan de Fuca Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Green River Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Mid Hood Canal Summer/Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Nisqually River Summer/Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Nooksack Spring Early	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Puyallup Summer/Fall	3	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skagit Spring	3	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skagit Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Skokomish Summer/Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Snohomish Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: Stillaguamish Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Puget Sound: White River Spring	3	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Grays Harbor Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Grays Harbor Spring	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Hoh Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Hoh Spring/Summer	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Hoko Summer/Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Queets Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Queets Spring/Summer	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Quillayute Fall	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Quillayute Spring/Summer	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Quinalt Fall Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Willapa Bay Fall Hatchery	6	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 2 (January - March, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
NWFSC / SWFSC	PFMC	Non-FSSI	Chinook salmon - Washington Coast: Willapa Bay Fall Natural	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Central California Coast	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Columbia River Early Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Columbia River Late Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Lower Columbia Natural	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Oregon Coast Hatchery	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Oregon Coast Natural	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Oregon Production Index Area: Southern Oregon/Northern California Coast	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Puget Sound: Hood Canal	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Puget Sound: Skagit	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Puget Sound: Snohomish	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Puget Sound: South Puget Sound Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Puget Sound: Stillaguamish	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Grays Harbor	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Hoh	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Queets	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Quillayute Fall	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Quillayute Summer Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Quinalt Hatchery	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Strait of Juan de Fuca	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Willapa Bay Hatchery	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Coho salmon - Washington Coast: Willapa Bay Natural	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Pacific hake - Pacific Coast	6	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Pink salmon - Puget Sound	2	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 2 (January - March, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
PIFSC	WPFMC	Non-FSSI	Spanner crab - Main Hawaiian Islands	3	Operational Assessment	Delayed from FY18
SEFSC	CFMC	FSSI	Caribbean spiny lobster - Puerto Rico	2	Operational Assessment	
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St. Croix	2	Operational Assessment	
SEFSC	CFMC	FSSI	Caribbean spiny lobster - St. Thomas / St. John	2	Operational Assessment	
SEFSC	GMFMC	FSSI	Brown shrimp - Gulf of Mexico	6	Operational Assessment	
SEFSC	GMFMC	FSSI	Gray Triggerfish - Gulf of Mexico	6	Operational Assessment	
SEFSC	GMFMC	FSSI	Pink shrimp - Gulf of Mexico	6	Operational Assessment	
SEFSC	GMFMC	FSSI	Red grouper - Gulf of Mexico	6	Operational Assessment	
SEFSC	GMFMC	FSSI	Royal red shrimp - Gulf of Mexico	2	Operational Assessment	
SEFSC	GMFMC	FSSI	White shrimp - Gulf of Mexico	6	Operational Assessment	
SEFSC	SAFMC	FSSI	Brown rock shrimp - Southern Atlantic Coast	2	Operational Assessment	
SEFSC	SAFMC	FSSI	Brown shrimp - Southern Atlantic Coast	2	Operational Assessment	
SEFSC	SAFMC	FSSI	Pink shrimp - Southern Atlantic Coast	2	Operational Assessment	
SEFSC	SAFMC	FSSI	Red porgy - Southern Atlantic Coast	6	Operational Assessment	
SEFSC	SAFMC	FSSI	White shrimp - Southern Atlantic Coast	2	Operational Assessment	

Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 3 (April - June, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
AFSC	NPFMC	FSSI	Blue king crab - Pribilof Islands	2	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Weathervane scallop - Alaska	2	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Cabazon - Southern Pacific Coast	6	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Petrale sole - Pacific Coast	6	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Widow rockfish - Pacific Coast	6	Operational Assessment	
PIFSC	WPFMC	FSSI	American Samoa Bottomfish Multi-species Complex	3	Operational Assessment	
PIFSC	WPFMC	FSSI	Guam Bottomfish Multi-species Complex	3	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 3 (April - June, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
PIFSC	WPFMC	Non-FSSI	Guam Coral Reef Ecosystem Multi-species Complex	2	Operational Assessment	Up to 19 species will be assessed, Delayed from FY18
PIFSC	WPFMC	FSSI	Northern Mariana Islands Bottomfish Multi-species Complex	3	Operational Assessment	
SWFSC	PFMC	FSSI	Pacific chub mackerel - Pacific	6	Operational Assessment	
SWFSC	PFMC	FSSI	Pacific sardine - Pacific	6	Operational Assessment	

Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 4 (July - September, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
AFSC	NPFMC	Non-FSSI	Chinook salmon - Eastern North Pacific Far North Migrating	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Coho salmon - Auke Creek	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Coho salmon - Berners River	6	Operational Assessment	
AFSC	NPFMC	Non-FSSI	Coho salmon - Hugh Smith Lake	6	Operational Assessment	
NEFSC	MAFMC	FSSI	Black sea bass - Mid-Atlantic Coast	6	Operational Assessment	
NEFSC	MAFMC	FSSI	Bluefish - Atlantic Coast	6	Operational Assessment	
NEFSC	MAFMC	FSSI	Scup - Atlantic Coast	6	Operational Assessment	
NEFSC	NEFMC	FSSI	Atlantic cod - Eastern Georges Bank	4	Operational Assessment	
NEFSC	NEFMC	Non-FSSI	Atlantic salmon - Gulf of Maine	6	Operational Assessment	
NEFSC	NEFMC	FSSI	Haddock - Eastern Georges Bank	4	Operational Assessment	
NEFSC	NEFMC	FSSI	Yellowtail flounder - Georges Bank	2	Operational Assessment	
NWFSC / SWFSC	PFMC	Non-FSSI	Big Skate - Pacific Coast	6	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Cowcod - Southern California	3	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Gopher rockfish - Northern California	6	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Sablefish - Pacific Coast	6	Operational Assessment	
NWFSC / SWFSC	PFMC	FSSI	Longnose skate - Pacific Coast	6	Operational Assessment	
PIFSC	WPFMC	Non-FSSI	Oceanic whitetip shark - Western and Central Pacific	6	Operational Assessment	

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Planned Assessments for FSSI and Non-FSSI Stocks - FY 2019 Quarter 4 (July - September, 2019)

Science Center(s) ¹	Jurisdiction ²	FSSI / Non-FSSI ³	Stock	Model Class ⁴	Planned Asmt Type ⁵	Notes
PIFSC	WPFMC	Non-FSSI	Skipjack tuna - Western and Central Pacific	6	Operational Assessment	
PIFSC	WPFMC	Non-FSSI	Striped marlin - Western and Central Pacific	6	Operational Assessment	
SEFSC	HMS	Non-FSSI	White marlin - Atlantic	6	Operational Assessment	
SEFSC	HMS	Non-FSSI	Skipjack tuna - Western Atlantic	3	Operational Assessment	Either this or Yellowfin tuna - Atlantic
SEFSC	HMS	Non-FSSI	Yellowfin tuna - Atlantic	6	Operational Assessment	Either this or Skipjack tuna - Western Atlantic

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 Assessment Model Category: Category of stock assessment model accepted for use in management, as described in the 2018 Next Generation Stock Assessment Improvement Plan document.

1 = Data-Limited (e.g. DBSRA, DCAC, Surplus Production MSY, Egg-Escapement, Mean Length Estimation)

2 = Index-Based (e.g. AIM, basic linear models and time series analyses)

3 = Aggregate Biomass Dynamics (e.g. Schaefer or Pella-Tomlinson Production Models, ASPIC, delay-difference models)

4 = Virtual Population Analysis (e.g. ADAPT, VPA-2BOX)

5 = Statistical Catch-at-Length (e.g. SCALE, SS, MultifanCL)

6 = Statistical Catch-at-Age (e.g. SS, ASAP, AMAK, BAM, MultifanCL, CASAL)

5 For FY19, the National Stock Assessment Program is adapting how it tracks and classifies its activities related to the provision of harvest recommendations. The changes reflect the guidance established in the 2018 Next Generation Stock Assessment Improvement Plan document.

Operational Assessment - Activities labeled "Operational Stock Assessments" include analyses that utilize one or more of the categories of stock assessment models described in the "Model Class" field (Footnote 4). Within the range of operational assessments will be first time applications of

previously researched methods ("new" or "benchmark" assessments); applications with updated data streams and minor revisions to methods within the scope of previously researched themes; and applications that simply update the model with the most recent data.

Stock Monitoring Analysis - Activities labeled "Stock Monitoring Analyses" generally include activities that provide stock-level advice to fishery managers between stock assessments. These analyses include the methods described in the "Model Class" field (Footnote 4), but only when they are updated using the most recent catch information to develop new catch advice. These are sometimes called partial updates. Because there are no changes in the methods or data series in stock monitoring updates, just updated catch data, the conduct and review of these analyses does not warrant intense scrutiny.

* Changes in the assessment schedule are indicated by red font.

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Appendix D. Assessment status for FSSI stocks and stock complexes at the end of FY2018. 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
			Fiscal Year	Level ³	Type	Adequate?	
AFSC	NPFMC	Alaska plaice - Bering Sea / Aleutian Islands	2018	4	Full Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Bering Sea / Aleutian Islands	2018	5	Partial Update	Yes	
AFSC	NPFMC	Arrowtooth flounder - Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Atka mackerel - Bering Sea / Aleutian Islands	2018	4	Full Update	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Blackspotted and Rougheye Rockfish Complex	2018	4	Partial Update	Yes	
AFSC	NPFMC	Bering Sea / Aleutian Islands Flathead Sole Complex	2018	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	2018	4	Partial Update	Yes	The assessment listed is for the Rock Sole Complex indicator stock, Northern rock sole.
AFSC	NPFMC	Bering Sea / Aleutian Islands Skate Complex	2018	4	Partial Update	Yes	The assessment is for the Bering Sea / Aleutian Islands Skate Complex indicator stock, Alaska skate.
AFSC	NPFMC	Blue king crab - Pribilof Islands	2018	1	Full Update	No	
AFSC	NPFMC	Blue king crab - Saint Matthew Island	2018	4	Full Update	Yes	
AFSC	NPFMC	Dusky rockfish - Gulf of Alaska	2018	4	Partial Update	Yes	
AFSC	NPFMC	Flathead sole - Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Golden king crab - Aleutian Islands	2018	4	Full Update	Yes	
AFSC	NPFMC	Greenland halibut - Bering Sea / Aleutian Islands	2018	4	Partial Update	Yes	
AFSC	NPFMC	Gulf of Alaska Blackspotted and Rougheye Rockfish Complex	2018	4	Full Update	Yes	
AFSC	NPFMC	Gulf of Alaska Deepwater Flatfish Complex	2018	4	Partial Update	Yes	The assessment is for Deepwater Flatfish Complex indicator stock, Dover sole.

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
AFSC	NPFMC	Gulf of Alaska Demersal Shelf Rockfish Complex	2018	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	2018	4	Full 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	2018	3	Partial Update	Yes	The assessment is for the Thornyhead Rockfish Complex indicator stock, shortspine thornyhead.
AFSC	NPFMC	Northern rockfish - Bering Sea / Aleutian Islands	2018	4	Partial Update	Yes	
AFSC	NPFMC	Northern rockfish - Western / Central Gulf of Alaska	2018	4	Partial Update	Yes	
AFSC	NPFMC	Pacific cod - Bering Sea / Aleutian Islands	2018	4	Full Update	Yes	
AFSC	NPFMC	Pacific cod - Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Pacific ocean perch - Bering Sea / Aleutian Islands	2018	4	Partial Update	Yes	
AFSC	NPFMC	Pacific ocean perch - Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Bristol Bay	2018	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Norton Sound	2018	4	Full Update	Yes	
AFSC	NPFMC	Red king crab - Pribilof Islands	2018	1	Full Update	No	
AFSC	NPFMC	Rex sole - Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Sablefish - Eastern Bering Sea / Aleutian Islands / Gulf of Alaska	2018	5	Full Update	Yes	
AFSC	NPFMC	Snow crab - Bering Sea	2018	4	Full Update	Yes	
AFSC	NPFMC	Southern Tanner crab - Bering Sea	2018	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Aleutian Islands	2018	4	Partial Update	Yes	
AFSC	NPFMC	Walleye pollock - Eastern Bering Sea	2018	4	Full Update	Yes	
AFSC	NPFMC	Walleye pollock - Western / Central / West Yakutat Gulf of Alaska	2018	4	Full Update	Yes	
AFSC	NPFMC	Yellowfin sole - Bering Sea / Aleutian Islands	2018	5	Full Update	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
NEFSC	MAFMC	Atlantic mackerel - Gulf of Maine / Cape Hatteras	2018	4	Benchmark	Yes	
			2016	NA	Data Update		
NEFSC	MAFMC	Atlantic surfclam - Mid-Atlantic Coast	2017	4	Benchmark	Yes	
			2017	NA	Data Update		
NEFSC	MAFMC	Black sea bass - Mid-Atlantic Coast	2017	4	Benchmark	Yes	
			2016	NA	Data Update		
NEFSC	MAFMC	Bluefish - Atlantic Coast	2015	4	Benchmark	Yes	
			2017	NA	Data Update		
NEFSC	MAFMC	Butterfish - Gulf of Maine / Cape Hatteras	2017	5	Full Update	Yes	
			2016	NA	Data Update		
NEFSC	MAFMC	Longfin inshore squid - Georges Bank / Cape Hatteras	2017	1	Full Update	No	
			2016	NA	Data Update		
NEFSC	MAFMC	Northern shortfin squid - Northwestern Atlantic Coast	2005	2	Benchmark	No	
			2017	NA	Data Update		
NEFSC	MAFMC	Ocean quahog - Atlantic Coast	2017	4	Benchmark	Yes	
			2016	NA	Data Update		
NEFSC	MAFMC	Scup - Atlantic Coast	2017	4	Partial Update	Yes	
			2016	NA	Data Update		
NEFSC	MAFMC	Summer flounder - Mid-Atlantic Coast	2016	4	Full Update	Yes	
			2017	NA	Data Update		
NEFSC	MAFMC	Tilefish - Mid-Atlantic Coast	2017	4	Full Update	Yes	
			2016	NA	Data Update		
NEFSC	NEFMC	Acadian redfish - Gulf of Maine / Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	American plaice - Gulf of Maine / Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	Atlantic cod - Georges Bank	2018	1	Full Update	NO	The 2018 assessment of Georges Bank Atlantic Cod was completed at level 1
		Substock: Eastern Georges Bank	2017	4	Full Update		
NEFSC	NEFMC	Atlantic cod - Gulf of Maine	2018	4	Full Update	Yes	
NEFSC	NEFMC	Atlantic halibut - Northwestern Atlantic Coast	2016	-3	Full Update	No	
NEFSC	NEFMC	Atlantic herring - Northwestern Atlantic Coast	2015	5	Full Update	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
NEFSC	NEFMC	Atlantic wolffish - Gulf of Maine / Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	Barndoor skate - Georges Bank / Southern New England	2017	1	Full Update	No	
NEFSC	NEFMC	Clearnose skate - Southern New England / Mid-Atlantic	2017	1	Full Update	No	
NEFSC	NEFMC	Haddock - Georges Bank	2018	4	Full Update	Yes	
		<i>Substock</i> : Eastern Georges Bank	2017	4	Partial Update		
NEFSC	NEFMC	Haddock - Gulf of Maine	2018	4	Full Update	Yes	
NEFSC	NEFMC	Little skate - Georges Bank / Southern New England	2017	1	Full Update	No	
NEFSC	NEFMC	Ocean pout - Northwestern Atlantic Coast	2018	1	Full Update	No	
NEFSC	NEFMC	Offshore hake - Northwestern Atlantic Coast	2011	-1	Benchmark	No	
NEFSC	NEFMC	Pollock - Gulf of Maine / Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	Red deepsea crab - Northwestern Atlantic	2006	1	Benchmark	No	
NEFSC	NEFMC	Red hake - Gulf of Maine / Northern Georges Bank	2018	1	Full Update	No	
NEFSC	NEFMC	Red hake - Southern Georges Bank / Mid-Atlantic	2018	1	Full Update	No	
NEFSC	NEFMC	Rosette skate - Southern New England / Mid-Atlantic	2017	1	Full Update	No	
NEFSC	NEFMC	Sea scallop - Northwestern Atlantic Coast	2016	4	Partial Update	Yes	No assessment was completed in 2017
NEFSC	NEFMC	Silver hake - Gulf of Maine / Northern Georges Bank	2018	1	Full Update	No	
NEFSC	NEFMC	Silver hake - Southern Georges Bank / Mid-Atlantic	2018	1	Full Update	No	
NEFSC	NEFMC	Smooth skate - Gulf of Maine	2017	1	Full Update	No	
NEFSC	NEFMC	Thorny skate - Gulf of Maine	2017	1	Full Update	No	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
NEFSC	NEFMC	White hake - Gulf of Maine / Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	Windowpane - Gulf of Maine / Georges Bank	2018	1	Full Update	No	
NEFSC	NEFMC	Windowpane - Southern New England / Mid-Atlantic	2018	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Georges Bank	2018	4	Full Update	Yes	
NEFSC	NEFMC	Winter flounder - Gulf of Maine	2018	1	Full Update	No	
NEFSC	NEFMC	Winter flounder - Southern New England / Mid-Atlantic	2018	4	Full Update	Yes	
NEFSC	NEFMC	Winter skate - Georges Bank / Southern New England	2017	1	Full Update	No	
NEFSC	NEFMC	Witch flounder - Northwestern Atlantic Coast	2018	1	Benchmark	No	
NEFSC	NEFMC	Yellowtail flounder - Cape Cod / Gulf of Maine	2018	4	Full Update	Yes	
NEFSC	NEFMC	Yellowtail flounder - Georges Bank	2017	1	Full Update	No	
NEFSC	NEFMC	Yellowtail flounder - Southern New England / Mid-Atlantic	2018	4	Benchmark	Yes	
NEFSC	NEFMC/MAFMC	Goosefish - Gulf of Maine / Northern Georges Bank	2014	4	Full Update	Yes	
			2016	NA	Data Update		
NEFSC	NEFMC/MAFMC	Goosefish - Southern Georges Bank / Mid-Atlantic	2014	4	Full Update	Yes	
			2016	NA	Data Update		
NEFSC	NEFMC/MAFMC	Spiny dogfish - Atlantic Coast	2015	4	Full Update	Yes	
			2017	NA	Data Update		
NWFSC/SWFSC	PFMC	Arrowtooth flounder - Pacific Coast	2017	4	Full 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	2017	4	Full Update	Yes	
NWFSC/SWFSC	PFMC	Blue rockfish - California	2017	4	Benchmark	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
NWFSC/SWFSC	PFMC	Bocaccio - Southern Pacific Coast	2017	4	Full Update	Yes	
NWFSC/SWFSC	PFMC	Brown rockfish - Pacific Coast	2014	3	New	Yes	
NWFSC/SWFSC	PFMC	Cabazon - California	2009	4	Benchmark	No	
NWFSC/SWFSC	PFMC	California scorpionfish - Southern California	2017	4	Benchmark	Yes	
NWFSC/SWFSC	PFMC	Canary rockfish - Pacific Coast	2017	4	Partial Update	Yes	
NWFSC/SWFSC	PFMC	Chilipepper - Southern Pacific Coast	2017	4	Partial Update	Yes	
NWFSC/SWFSC	PFMC	Chinook salmon - Sacramento River Fall	2018	4	Full Update	Yes	
NWFSC/SWFSC	PFMC	Chinook salmon - Klamath River Fall	2018	3	Full Update	Yes	
NWFSC/SWFSC	PFMC	Cowcod - Southern California	2013	3	Benchmark	NO	
NWFSC/SWFSC	PFMC	Darkblotched rockfish - Pacific Coast	2017	4	Full Update	Yes	
NWFSC/SWFSC	PFMC	Dover sole - Pacific Coast	2011	4	Benchmark	No	
NWFSC/SWFSC	PFMC	English sole - Pacific Coast	2013	3	Benchmark	NO	
NWFSC/SWFSC	PFMC	Gopher rockfish - Northern California	2006	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	2017	4	Benchmark	Yes	
NWFSC/SWFSC	PFMC	Longnose skate - Pacific Coast	2007	4	Full Update	No	
NWFSC/SWFSC	PFMC	Longspine thornyhead - Pacific Coast	2013	3	Benchmark	NO	
NWFSC/SWFSC	PFMC	Pacific ocean perch - Pacific Coast	2018	4	Benchmark	Yes	
NWFSC/SWFSC	PFMC	Pacific sanddab - Pacific Coast	2013	4	New	NO	Partial acceptance -- status determinations only
NWFSC/SWFSC	PFMC	Petrable sole - Pacific Coast	2015	4	Full Update	Yes	
NWFSC/SWFSC	PFMC	Rex sole - Pacific Coast	2013	3	Full Update	NO	
NWFSC/SWFSC	PFMC	Rougheye rockfish - Pacific Coast	2013	4	Full Update	NO	
NWFSC/SWFSC	PFMC	Sablefish - Pacific Coast	2015	4	Full Update	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
NWFSC/ SWFSC	PFMC	Shortbelly rockfish - Pacific Coast	2007	4	New	No	
NWFSC/ SWFSC	PFMC	Shortspine thornyhead - Pacific Coast	2013	4	Benchmark	NO	
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	2018	1	New	No	Stock is assessed in Northern and Southern components and treated as a complex
NWFSC/ SWFSC	PFMC	Vermilion rockfish - California	2005	4	New	No	
NWFSC/ SWFSC	PFMC	Widow rockfish - Pacific Coast	2015	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Yelloweye rockfish - Pacific Coast	2017	4	Benchmark	Yes	
NWFSC/ SWFSC	PFMC	Yellowtail rockfish - Northern Pacific Coast	2017	4	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	2018	3	Full Update	Yes	Two assessments, one for the complex and another for the Opakapaka stock
PIFSC	WPFMC	Northern Mariana Islands Bottomfish Multi-species Complex	2015	3	Full Update	Yes	
SEFSC	CFMC	Caribbean Groupers	2015	2	Benchmark	No	Assessment of complex component red hind
SEFSC	CFMC	Caribbean Parrotfish Complex	NA			No	
SEFSC	CFMC	Caribbean Snappers	2012	2	New	No	Assessment of silk snapper delayed
SEFSC	CFMC	Caribbean spiny lobster - Puerto Rico	2009	2	New	No	
SEFSC	CFMC	Caribbean spiny lobster - St. Croix	2009	2	New	No	
SEFSC	CFMC	Caribbean spiny lobster - St. Thomas/St. John	2009	2	New	No	
SEFSC	CFMC	Queen conch - Caribbean	2009	2	New	No	
SEFSC	CFMC	Triggerfish and Filefish Complex - Puerto Rico	2013	-1	Benchmark	No	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Croix	2013	-1	Benchmark	No	
SEFSC	CFMC	Triggerfish and Filefish Complex - St. Thomas/St. John	2013	-1	Benchmark	No	
SEFSC	GMFMC	Brown shrimp - Gulf of Mexico	2018	4	Full Update	Yes	
SEFSC	GMFMC	Gag - Gulf of Mexico	2014	4	Benchmark	Yes	Assessment planned for FY17 delayed
SEFSC	GMFMC	Gray triggerfish - Gulf of Mexico	2015	4	Full Update	Yes	
SEFSC	GMFMC	Greater amberjack - Gulf of Mexico	2017	4	Benchmark	Yes	
SEFSC	GMFMC	Hogfish - Eastern Gulf of Mexico	2018	4	Full Update	Yes	
SEFSC	GMFMC	Pink shrimp - Gulf of Mexico	2018	4	Full Update	Yes	
SEFSC	GMFMC	Red grouper - Gulf of Mexico	2016	4	Benchmark	Yes	
SEFSC	GMFMC	Red snapper - Gulf of Mexico	2018	4	Standard	Yes	
SEFSC	GMFMC	Royal red shrimp - Gulf of Mexico	2018	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	2018	4	Full Update	Yes	
SEFSC	GMFMC	Yellowedge grouper - Gulf of Mexico	2011	4	Benchmark	No	
SEFSC	HMS	Atlantic sharpnose shark - Atlantic	2014	4	Full Update	Yes	Partial acceptance -- status determinations only
SEFSC	HMS	Atlantic sharpnose shark - Gulf of Mexico	2014	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	
SEFSC	HMS	Blacktip shark - Atlantic	2006	-4	Full Update	No	
SEFSC	HMS	Blacktip shark - Gulf of Mexico	2012	4	Full Update	No	
SEFSC	HMS	Blue shark - North Atlantic	2016	4	Benchmark	Yes	
SEFSC	HMS	Bonnethead - Atlantic	2013	-4	Full Update	No	Rejected -- results too uncertain to be considered adequate
SEFSC	HMS	Bonnethead - Gulf of Mexico	2013	-4	Full Update	No	Rejected -- results too uncertain to be considered adequate
SEFSC	HMS	Dusky shark - Atlantic	2016	4	Full Update	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	
SEFSC	HMS	Finetooth shark - Atlantic	2008	3	Benchmark	No	
SEFSC	HMS	Porbeagle - Atlantic	2010	4	New	No	
SEFSC	HMS	Sandbar shark - Atlantic	2018	4	Full Update	Yes	Atlantic and Gulf of Mexico stock
SEFSC	HMS	Scalloped Hammerhead Complex - Atlantic	2010	3	Unknown	No	
SEFSC	HMS	Shortfin mako - Atlantic	2018	4	Benchmark	Yes	
SEFSC	SAFMC	Black grouper - Southern Atlantic Coast	2010	4	Benchmark	No	Assessment planned for FY18 delayed indefinitely
SEFSC	SAFMC	Black sea bass - Southern Atlantic Coast	2018	4	Full Update	Yes	
SEFSC	SAFMC	Blueline tilefish - Southern Atlantic Coast	2018	4	Benchmark	Yes	
SEFSC	SAFMC	Brown rock shrimp - Southern Atlantic Coast	2018	1	Full Update	No	
SEFSC	SAFMC	Brown shrimp - Southern Atlantic Coast	2018	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	2015	4	Benchmark	Yes	
SEFSC	SAFMC	Pink shrimp - Southern Atlantic Coast	2018	1	Full Update	No	
SEFSC	SAFMC	Red grouper - Southern Atlantic Coast	2017	4	Standard	Yes	
SEFSC	SAFMC	Red porgy - Southern Atlantic Coast	2013	4	Full Update	NO	
SEFSC	SAFMC	Red snapper - Southern Atlantic Coast	2016	4	Benchmark	Yes	
SEFSC	SAFMC	Snowy grouper - Southern Atlantic Coast	2014	4	Unknown	Yes	
SEFSC	SAFMC	Speckled hind - Southern Atlantic Coast	2002	2	Unknown	No	

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			Fiscal Year	Level ³	Type	Adequate?	
SEFSC	SAFMC	Tilefish - Southern Atlantic Coast	2016	4	Full Update	Yes	
SEFSC	SAFMC	Vermilion snapper - Southern Atlantic Coast	2018	4	Full Update	Yes	
SEFSC	SAFMC	Warsaw grouper - Southern Atlantic Coast	2002	2	Unknown	No	
SEFSC	SAFMC	White shrimp - Southern Atlantic Coast	2018	1	Full Update	No	
SEFSC	SAFMC/ GMFMC	Caribbean spiny lobster - Southern Atlantic Coast / Gulf of Mexico	2011	(-4)	Full Update	No	Last accepted assessment was in FY 2006
SEFSC	SAFMC/ GMFMC	Cobia - Gulf of Mexico	2013	4	Benchmark	NO	
SEFSC	SAFMC/ GMFMC	Cobia - Southern Atlantic Coast	2013	4	Benchmark	NO	
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	NO	
SEFSC	SAFMC/ GMFMC	Spanish mackerel - Southern Atlantic Coast	2013	4	Benchmark	NO	
SEFSC	SAFMC/ GMFMC	Yellowtail snapper - Southern Atlantic Coast / Gulf of Mexico	2013	4	Benchmark	NO	
SWFSC	PFMC	Northern anchovy - Southern Pacific Coast	1995	0	Unknown	No	
SWFSC	PFMC	Opalescent inshore squid - Pacific Coast	2007	2	New	No	
SWFSC	PFMC	Pacific chub mackerel - Pacific Coast	2017	4	Full Update	Yes	
SWFSC	PFMC	Pacific sardine - Pacific Coast	2018	5	Full Update	Yes	

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Science Center(s) ¹	Jurisdiction ²	Stock	Last Assessment				Assessment Notes
			Fiscal Year	Level ³	Type	Adequate?	

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.

* Changes are indicated by red font.



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