

Fish Stock Sustainability Index (FSSI)

2013 Quarter 1 Update through March 31, 2013

Overview

The FSSI is a performance measure for the sustainability of 227¹ U.S. fish stocks² selected for their importance to commercial and recreational fisheries. The FSSI will increase as stock status becomes known, overfishing is ended, and stocks increase to the level that provides maximum sustainable yield.

FSSI Scoring Method

The FSSI is calculated by assigning a score for each fish stock based on the five following criteria:

Criteria	Points Awarded
1. "Overfished" status is known	0.5
2. "Overfishing" status is known	0.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	1.0
4. Stock biomass is above the "overfished" level defined for the stock	1.0
5. Stock biomass is at or above 80% of the biomass that produces maximum sustainable yield (B_{MSY}) ³ (this point is in addition to the point awarded for being above the "overfished" level)	1.0

The maximum score each stock may receive is 4. The value of the FSSI is the sum of all 227¹ individual stock scores. The maximum total FSSI score is 920, achieved if all 227¹ stocks were to each receive a score of 4.

Current FSSI Score

2013 Quarter 1 Score = 614 (January 1, 2013 to March 31, 2013)

The following table summarizes the current FSSI score and where additional points can be gained to raise the score in the future.

Criteria	# Stocks	Current Points	Total Points Possible	Actions that Can Increase the Score	Potential Points to Gain
1. "Overfished" status is known Overfished: 38 Not Overfished: 139	177	88.5	115	Determine the "overfished" status for the remaining 53 stocks	26.5
2. "Overfishing" status is known Overfishing: 27 Not subject to overfishing: 170	197	98.5	115	Determine the "overfishing" status for the remaining 33 stocks	16.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	170	170	230	End overfishing on the 27 stocks subject to overfishing. Ensure the 33 stocks (see #2 above) are not subject to overfishing.	60
4. Stock biomass is above the "overfished" level defined for the stock (for stocks with a known "overfished" status and that are "not overfished")	139	139	230	Increase the biomass above the overfished level for the 38 overfished stocks. Ensure the biomass for the 53 stocks (see #1 above) is above the overfished level.	91
5. Stock biomass is at or above 80% of B_{MSY} (this point is in addition to the point awarded for being above the "overfished" level, criteria #4)	118	118	230	For the 38 overfished stocks and the 21 stocks that are not overfished (but biomass is not at or above 80% of B_{MSY}), increase biomass to at or above 80% of B_{MSY} . Ensure the biomass for the 53 stocks (see #1 above) is at or above 80% of B_{MSY} .	112
TOTAL		614	920		306

¹ The FSSI previously contained 230 stocks. Gulf of Mexico stone crab and little tunny are no longer managed under federal fishery management plans (FMPs), and Gulf of Mexico black grouper is now managed as a combined Gulf of Mexico/South Atlantic stock under the Gulf of Mexico Reef Fish and Snapper-Grouper FMPs. To provide continuity in the FSSI, the final point score for these 3 stocks remains in the index until FY 2015.

² The majority of species are assessed as a single stock; however, there are a few that are assessed as a stock complex, which contain a group of species with similar geographic distribution, co-occurrence in fisheries, and life history.

³ Stocks rebuilding from a previously overfished condition are not awarded the fourth point until they reach B_{MSY} , as mandated by the Magnuson-Stevens Act. After they have been fully rebuilt, they may fluctuate within the 80% parameter and retain the score of 4 like the other non-rebuilding stocks.

Overview of FSSI stocks through March 31, 2013

<u>Overfishing Status</u>	<u>Number of Stocks/Stock Complexes</u>	<u>Overfished Status</u>	<u>Number of Stocks/Stock Complexes</u>
Known Status	197	Known Status	177
Not Subject to Overfishing	170	Not Overfished (includes 4 stocks approaching an overfished condition)	139
Subject to Overfishing	27	Overfished	38
Unknown Status	33	Unknown Status	53

Summary of Overfishing and Overfished Changes of FSSI Stocks from January 1, 2013 through March 31, 2013

<u>Stock</u>	<u>Region</u>	<u>Previous Status</u>	<u>Current Status</u>	<u>Previous Total FSSI Score</u>	<u>Current Total FSSI Score</u>
Pacific bluefin tuna - Pacific	PFMC / WPFMC	Not Overfished B/Bmsy > 80%	Overfished	3	1
TOTAL FSSI SCORE				616	614

Overview of overfishing status of non-FSSI stocks through March 31, 2013

- 87 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 85 stocks or stock complexes are not subject to overfishing.
 - 2 stocks have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 132 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

Changes in overfishing status of non-FSSI stocks

There are no changes to any of the Regions.

Overview of overfished status of non-FSSI stocks through March 31, 2013

- 42 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 39 stocks or stock complexes are not overfished (1 of these stocks is approaching an overfished condition).
 - 3 stocks are overfished.

- 177 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

Changes in overfished status of non-FSSI stocks

- In the Southwest Region –
 - Sacramento River fall Chinook salmon – no longer overfished and rebuilt.

There are no changes to any of the other Regions.

FSSI stock status updates are posted quarterly at:

<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm#07>