

# Fish Stock Sustainability Index (FSSI)

## 2012 Quarter 3 Update through September 30, 2012

### Overview

The FSSI is a performance measure for the sustainability of 230 U.S. fish stocks<sup>1</sup> 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. **NOTE: The status of all 230 FSSI stocks will be reported until FY13, but there are now only 227 FSSI stocks due to the removal of stocks from FMPs<sup>2</sup>.**

### FSSI Scoring Method

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

<u>Criteria</u>	<u>Points Awarded</u>
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 ( $B_{MSY}$ ) <sup>3</sup> (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 230 individual stock scores. The maximum total FSSI score is 920, achieved if all 230 stocks were to each receive a score of 4.

### Current FSSI Score

**2012 Quarter 3 Score = 606** (July 1, 2012 to September 30, 2012)

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

<u>Criteria</u>	<u># Stocks</u>	<u>Current Points</u>	<u>Total Points Possible</u>	<u>Actions that Can Increase the Score</u>	<u>Potential Points to Gain</u>
<b>1. "Overfished" status is known</b> Overfished: 39 Not Overfished: 139	<b>178</b>	<b>89</b>	<b>115</b>	Determine the "overfished" status for the remaining 52 stocks	<b>26</b>
<b>2. "Overfishing" status is known</b> Overfishing: 32 Not subject to overfishing: 162	<b>194</b>	<b>97</b>	<b>115</b>	Determine the "overfishing" status for the remaining 36 stocks	<b>18</b>
<b>3. Overfishing is not occurring</b> (for stocks with known "overfishing" status)	<b>162</b>	<b>162</b>	<b>230</b>	End overfishing on the 32 stocks subject to overfishing. Ensure the 36 stocks (see #2 above) are not subject to overfishing.	<b>68</b>
<b>4. Stock biomass is above the "overfished" level defined for the stock</b> (for stocks with a known "overfished" status and that are "not overfished")	<b>139</b>	<b>139</b>	<b>230</b>	Increase the biomass above the overfished level for the 39 overfished stocks. Ensure the biomass for the 52 stocks (see #1 above) is above the overfished level.	<b>91</b>
<b>5. Stock biomass is at or above 80% of <math>B_{MSY}</math></b> (this point is in addition to the point awarded for being above the "overfished" level, criteria #4)	<b>119</b>	<b>119</b>	<b>230</b>	For the 39 overfished stocks and the 20 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 52 stocks (see #1 above) is at or above 80% of $B_{MSY}$ .	<b>111</b>
<b>TOTAL</b>		<b>606</b>	<b>920</b>		<b>314</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

## Summary of Stock Status Determination Changes from July 1, 2012 through September 30, 2012

### Overview of overfishing status of FSSI stocks through September 30, 2012

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

### Overview of overfished status of FSSI stocks through September 30, 2012

- 178 stocks or stock complexes are known with respect to their overfished status. Of these:
  - 139 stocks or stock complexes are not overfished (5 of these stocks are approaching an overfished condition).
  - 39 stocks or stock complexes are overfished.
- 52 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

### Summary of Overfishing and Overfished Changes of FSSI Stocks

<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>
Yellowtail flounder – Southern New England/Mid-Atlantic	NEFMC	Subject to Overfishing Overfished	Not Subject to Overfishing Not Overfished/Rebuilt	1	4
Albacore – North Pacific	PFMC/ WPFMC	Overfishing – Unknown Overfished – Unknown	Not Subject to Overfishing Not Overfished	0	3
TOTAL FSSI SCORE				600	606

\* The overfished status of butterfish is unknown, based on the fact that the last assessment was unable to estimate stock size with reasonable confidence. In addition, the previous assessment conducted in 2004, was found to have significant problems in retrospect, such that stock size estimates are highly uncertain.

### Overview of overfishing status of non-FSSI stocks through September 30, 2012

- 66 stocks or stock complexes are known with respect to their overfishing status. Of these:
  - 64 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).
- 182 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

## Overview of overfished status of non-FSSI stocks through September 30, 2012

- 42 stocks or stock complexes are known with respect to their overfished status. Of these:
  - 38 stocks or stock complexes are not overfished (1 of these stocks is approaching an overfished condition).
  - 4 stocks are overfished.
- 206 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

**FSSI stock status updates are posted quarterly at:**

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