

# Fish Stock Sustainability Index (FSSI)

## 2007 Quarter 2 Update through June 30, 2007

### 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 overfishing is ended and stocks rebuild 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:

<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>2</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

**2007 Quarter 2 Score = 516** (April 1, 2007 to June 30, 2007)

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: 46 Not Overfished: 118	<b>164</b>	<b>82</b>	<b>115</b>	Determine the "overfished" status for the remaining 66 stocks	<b>33</b>
<b>2. "Overfishing" status is known</b> Overfishing: 44 Not subject to overfishing: 136	<b>180</b>	<b>90</b>	<b>115</b>	Determine the "overfishing" status for the remaining 50 stocks	<b>25</b>
<b>3. Overfishing is not occurring</b> (for stocks with known "overfishing" status)	<b>136</b>	<b>136</b>	<b>230</b>	End overfishing on the 44 stocks subject to overfishing. Ensure the 50 stocks (see #2 above) are not subject to overfishing.	<b>94</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>118</b>	<b>118</b>	<b>230</b>	Increase the biomass above the overfished level for the 46 overfished stocks. Ensure the biomass for the 66 stocks (see #1 above) is above the overfished level.	<b>112</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>90</b>	<b>90</b>	<b>230</b>	For the 46 overfished stocks and the 28 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 66 stocks (see #1 above) is at or above 80% of $B_{MSY}$ .	<b>140</b>
<b>TOTAL</b>		<b>516</b>	<b>920</b>		<b>404</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> 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.





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## Summary of Stock Status Determination Changes from April 1, 2007 through June 30, 2007

### Overview of overfishing status of FSSI stocks through June 30, 2007

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

### Changes in overfishing status and/or score of FSSI stocks

- In the Southeast Region –
  - *Gulf of Mexico Red Grouper* is no longer subject to overfishing – score increased from 2 to 4 (see overfished changes).
- There are no changes to the other regions.

### Overview of overfished status of FSSI stocks through June 30, 2007

- 164 stocks or stock complexes are known with respect to their overfished status. Of these:
  - 118 stocks or stock complexes are not overfished (2 of these stocks are approaching an overfished condition).
  - 46 stocks or stock complexes are overfished.
- 66 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

### Changes in overfished status and/or score of FSSI stocks

- In the Northeast Region –
  - *Silver Hake - Southern Georges Bank / Middle Atlantic* is now rebuilt – score increased from 3 to 4.

- In the Southeast Region –
  - *South Atlantic Gag* is now approaching an overfished condition (there is no change in score).
  - *Dolphin* is now above 80% of maximum sustainable yield – score increased from 3 to 4.
  - *Gulf of Mexico Red Grouper* is now rebuilt – score increased from 2 to 4 (see overfishing changes).
- In the Northwest Region –
  - *Pacific Ocean Perch* is no longer overfished (stock is still rebuilding) – score increased from 2 to 3.
  - *Longnose Skate* is not overfished and B/Bmsy is above 80% of maximum sustainable yield (stock was previously listed as unknown) – score increased from 0 to 2.5.
- There are no changes to the other regions.

### **Overview of overfishing status of non-FSSI stocks through June 30, 2007**

- 60 stocks or stock complexes are known with respect to their overfishing status. Of these:
  - 58 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).
- 236 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 June 30, 2007**

- 22 stocks or stock complexes are known with respect to their overfished status. Of these:
  - 21 stocks or stock complexes are not overfished.
  - 1 stock is overfished.
- 274 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**

- There are no changes to any of the regions.