

Fish Stock Sustainability Index (FSSI)

2006 Quarter 3 Update through September 30, 2006

Overview

The FSSI is a performance measure for the sustainability of 230 U.S. fish stocks¹ 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}) ² (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

2006 Quarter 3 Score = 501 (July 1, 2006 to September 30, 2006)

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>
1. "Overfished" status is known Overfished: 46 Not Overfished: 115	161	80.5	115	Determine the "overfished" status for the remaining 69 stocks	34.5
2. "Overfishing" status is known Overfishing: 46 Not subject to overfishing: 131	177	88.5	115	Determine the "overfishing" status for the remaining 53 stocks	26.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	131	131	230	End overfishing on the 46 stocks subject to overfishing. Ensure the 53 stocks (see #2 above) are not subject to overfishing.	99
4. Stock biomass is above the "overfished" level defined for the stock (for stocks with a known "overfished" status and that are "not overfished")	115	115	230	Increase the biomass above the overfished level for the 46 overfished stocks. Ensure the biomass for the 69 stocks (see #1 above) is above the overfished level.	115
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)	86	86	230	For the 46 overfished stocks and the 29 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 69 stocks (see #1 above) is at or above 80% of B_{MSY} .	144
TOTAL	230	501	920		419

¹ 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.

² 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.



Fish Stock Sustainability Index (FSSI)

Summary of Stock Status Determination Changes through September 30, 2006

Overview of overfishing status of FSSI stocks through September 30, 2006

- 177 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 131 stocks or stock complexes are not subject to overfishing.
 - 46 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 53 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 Northeast Region –
 - *Atlantic Sea Scallop* is no longer subject to overfishing – score increased from 3 to 4.
 - *Winter Skate* is now subject to overfishing – score decreased from 3 to 2.
- In the Southeast Region –
 - *South Atlantic Pink Shrimp* is now subject to overfishing – score decreased from 3 to 1 (see overfished changes).
 - *Gulf of Mexico Vermilion Snapper* is no longer subject to overfishing – score increased from 1 to 4 (see overfished changes).
 - *Gulf of Mexico Gag* is now subject to overfishing – score decreased from 1.5 to 0.5.
 - *Gulf of Mexico Gray Triggerfish* is subject to overfishing (was previously listed as unknown) –score increased from 0 to 0.5.
 - *South Atlantic / Gulf of Mexico Goliath Grouper* was previously listed twice in the report and the overfishing status was unknown. It is now listed only once.
- In the Northwest Region –
 - *Darkblotched Rockfish* is not subject to overfishing – score increased from 1 to 2. NOTE: This stock was erroneously reported as subject to overfishing last quarter, but revised landings data have indicated that the stock was not subject to overfishing.

- In the Highly Migratory Species Division –
 - The overfishing status of the *Large Coastal Shark Complex* is unknown (was previously subject to overfishing) – score decreased from 1 to 0 (see overfished changes).
 - *Porbeagle Shark* is not subject to overfishing (was previously listed as unknown) - score increased from 0 to 2 (see overfished changes).
 - *Dusky Shark* is subject to overfishing (was previously listed as unknown) – score increased from 0 to 1 (see overfished changes).
 - *Blacktip Shark* was previously assessed as a single stock and was not subject to overfishing. It is now assessed as two stocks; a *Gulf of Mexico* stock that is not subject to overfishing and an *Atlantic* stock whose overfishing status is unknown.

- There are no changes to the other regions.

Overview of overfished status of FSSI stocks through September 30, 2006

- 161 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 115 stocks or stock complexes are not overfished.
 - 46 stocks or stock complexes are overfished.
- 69 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 Southeast Region –
 - *South Atlantic Pink Shrimp* is now overfished – score decreased from 3 to 1 (see overfishing changes)
 - The biomass of *South Atlantic Tilefish* is now at or above 80% of maximum sustainable yield – score increased from 2 to 3.
 - *South Atlantic Gag* is not overfished (was previously listed as unknown) and the biomass is at or above 80% of maximum sustainable yield – score increased from 0.5 to 3.
 - *Gulf of Mexico Vermilion Snapper* is not overfished and the biomass is at or above 80% of maximum sustainable yield - score increased from 1 to 4 (see overfishing changes).
 - *South Atlantic / Gulf of Mexico Goliath Grouper* was previously listed twice in the report and the overfished status was undefined. It is now listed only once.



- In the Highly Migratory Species Division –
 - *Sandbar Shark* is now overfished – score decreased from 2 to 1.
 - The overfished status of the *Large Coastal Shark Complex* is unknown (was previously overfished) – score decreased from 1 to 0 (see overfishing changes).
 - *Porbeagle Shark* is overfished (was previously listed as unknown) - score increased from 0 to 2 (see overfishing changes).
 - *Dusky Shark* is overfished (was previously listed as unknown) – score increased from 0 to 1 (see overfishing changes).
 - *Blacktip Shark* was previously assessed as a single stock and was not overfished. It is now assessed as two stocks; a *Gulf of Mexico* stock that is not overfished and an *Atlantic* stock whose overfished status is unknown.
- There are no changes to the other regions.

Overview of overfishing status of non-FSSI stocks through September 30, 2006

- 63 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 61 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).
- 237 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 September 30, 2006

- 24 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 23 stocks or stock complexes are not overfished.
 - 1 stock is overfished.
- 276 stocks or stock complexes have overfishing 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.

