

The Fish Stock Sustainability Index (FSSI)

The FSSI is a high level index to reflect the sustainability of 230 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.

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

<u>Rule</u>	<u>Score</u>
1. Stock has known status determinations:	
a) overfishing	0.5
b) overfished	0.5
2. Fishing mortality rate is below the "overfishing" level defined for the stock	1.0
3. Biomass is above the "overfished" level defined for the stock	1.0
4. Biomass is at or above 80% of maximum sustainable yield (MSY) ² (this point is in addition to the point awarded for being above the "overfished" level)	1.0

The maximum score for each stock is 4. The value of the FSSI is computed by summing the individual stock scores. Since there are 230 stocks in the FSSI, an overall score of 920 would be achieved if every stock scored a 4.

The current value of the FSSI is 481.5, based on updates through September 30, 2005. The following table provides a summary of the current FSSI score and where additional points can be gained to raise the score:

<u>Category</u>	<u># Stocks</u>	<u>Action</u>	<u>Potential Points</u>
- Stocks subject to overfishing	43	- Overfishing ended	43
- Overfished stocks	43	- Biomass increases above threshold and rebuilt	86
- Stocks that are not overfished, but biomass is not yet at a sustainable level ²	35	- Stocks are managed at a sustainable level	35
- Stocks with one or more components ³ unknown status	87	- Status known, not subject to overfishing, biomass at sustainable level	274.5

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 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.

³ These are stocks for which either the overfishing determination or the overfished determination, or both the overfishing and overfished determinations, are unknown or undefined. Stocks where both components are unknown/undefined are counted only once.

NOTE: See additional changes at 2nd quarter 2006 update

Summary of Stock Status Determination Changes – Update through September 30, 2005

Overview of overfishing status of FSSI stocks through September 30, 2005

- 172 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 129 stocks or stock complexes are not subject to overfishing.
 - 43 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 58 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 FSSI stocks

- In the Northeast Region -
 - *American Plaice* is no longer subject to overfishing.
 - *Witch Flounder* is no longer subject to overfishing.
 - *Golden Tilefish* is no longer subject to overfishing.
 - *Little Skate* is not subject to overfishing (was previously unknown).
 - *Winter Skate* is not subject to overfishing (was previously unknown).
 - *Barndoor Skate* is not subject to overfishing (was previously unknown).
 - *Thorny Skate* is not subject to overfishing (was previously unknown).
 - *Clearnose Skate* is not subject to overfishing (was previously unknown).
 - *Rosette Skate* is not subject to overfishing (was previously unknown).
 - *Smooth Skate* is not subject to overfishing (was previously unknown).
 - *Yellowtail Flounder – Georges Bank* is subject to overfishing.
 - *Winter Flounder – Georges Bank* is subject to overfishing.
- In the Southeast Region –
 - *South Atlantic Goliath Grouper* is unknown with respect to overfishing (was previously listed as overfishing not occurring)
NOTE: This stock is now assessed as a combined South Atlantic and Gulf of Mexico stock.

- *Gulf of Mexico Goliath Grouper* is unknown with respect to overfishing (was previously listed as overfishing not occurring)
NOTE: This stock is now assessed as a combined South Atlantic and Gulf of Mexico stock.
- *Caribbean Spiny Lobster* is unknown – post SFA (was previously not subject to overfishing using pre SFA criteria)
- In the Pacific Islands Region –
 - Yellowfin Tuna – Central Western Pacific – is subject to overfishing.
- There are no changes for the other regions.

Overview of overfished status of FSSI stocks through September 30, 2005

- 155 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 112 stocks or stock complexes are not overfished.
 - 43 stocks or stock complexes are overfished.
- 75 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 FSSI stocks

- In the Northeast Region -
 - *Barndoor Skate* is not overfished.
 - *Bluefish* is not overfished.
 - *Golden Tilefish* is not overfished.
 - *Yellowtail Flounder – Georges Bank* is overfished.
 - *Scup* is overfished.
 - The biomass of *Winter Flounder – Georges Bank* is now below 80% of maximum sustainable yield.
- In the Southeast Region –
 - *SA/GM Spiny Lobster* is unknown – post SFA (was previously not overfished using pre SFA criteria)
 - *Caribbean Spiny Lobster* is unknown – post SFA (was previously not overfished using pre SFA criteria)
- In the Northwest Region –
 - *Widow Rockfish* is not overfished.
 - *Starry Flounder* is not overfished (was previously unknown).
 - *Blackgill Rockfish* is not overfished (was previously unknown).
 - *Gopher Rockfish* is not overfished (was previously unknown).

- *California Scorpionfish* is not overfished (was previously unknown).
 - *Kelp Greenling* is not overfished (was previously unknown).
 - *Pacific Ocean Perch* is overfished.
 - The biomass of *Shortspine Thornyhead* is now at or above 80% of maximum sustainable yield.
 - The biomass of *Sablefish* is now at or above 80% of maximum sustainable yield.
 - The biomass of *Dover Sole* is now at or above 80% of maximum sustainable yield.
 - The biomass of *English Sole* is now at or above 80% of maximum sustainable yield.
- There are no changes for the other regions.

Overview of overfishing status of non-FSSI stocks through September 30, 2005

- 64 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 63 stocks or stock complexes are not subject to overfishing.
 - 1 stock has a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 392 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 in status determinations

Overview of overfished status of non-FSSI stocks through September 30, 2005

- 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.
- 434 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 in status determinations