

Fish Stock Sustainability Index (FSSI)

2010 Quarter 1 Update through March 31, 2010

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

2010 Quarter 1 Score = 571.5 (January 1, 2010 to March 31, 2010)

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: 42 Not Overfished: 134	176	88	115	Determine the "overfished" status for the remaining 54 stocks	27
2. "Overfishing" status is known Overfishing: 40 Not subject to overfishing: 151	191	95.5	115	Determine the "overfishing" status for the remaining 39 stocks	19.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	151	151	230	End overfishing on the 40 stocks subject to overfishing. Ensure the 39 stocks (see #2 above) are not subject to overfishing.	79
4. Stock biomass is above the "overfished" level defined for the stock (for stocks with a known "overfished" status and that are "not overfished")	134	134	230	Increase the biomass above the overfished level for the 42 overfished stocks. Ensure the biomass for the 54 stocks (see #1 above) is above the overfished level.	96
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)	103	103	230	For the 42 overfished stocks and the 31 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 54 stocks (see #1 above) is at or above 80% of B_{MSY} .	127
TOTAL		571.5	920		348.5

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 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 January 1, 2010 through March 31, 2010

Overview of overfishing status of FSSI stocks through March 31, 2010

- 191 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 151 stocks or stock complexes are not subject to overfishing.
 - 40 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 39 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 March 31, 2010

- 176 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 134 stocks or stock complexes are not overfished (5 of these stocks are approaching an overfished condition).
 - 42 stocks or stock complexes are overfished.
- 54 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

Stock	Region	Previous Status	Current Status	Previous Total FSSI Score	Current Total FSSI Score
American plaice - Gulf of Maine/Georges Bank	NE	Overfished	Not Overfished – Rebuilding	2	3
Atlantic cod - Gulf of Maine	NE	Overfished	Not Overfished – Rebuilding	1	2
Atlantic halibut - Northwestern Atlantic Coast	NE	Overfishing – Unknown	Not Subject to Overfishing	0.5	2
Haddock - Georges Bank	NE	Overfished	Not Overfished/Rebuilt	2	4
Haddock - Gulf of Maine	NE	Overfished	Not Overfished – Rebuilding	2	3
Pollock - Gulf of Maine / Georges Bank	NE	Not Subject to Overfishing Not Overfished - Rebuilding	Subject to Overfishing Overfished	3	1
Windowpane - Gulf of Maine / Georges Bank	NE	Not Subject to Overfishing Not Overfished B/Bmsy>80%	Subject to Overfishing Overfished	4	1
Windowpane - Southern New England / Mid-Atlantic	NE	Not Subject to Overfishing Overfished	Subject to Overfishing Not Overfished – Rebuilding	2	2
Winter flounder - Georges Bank	NE	Not Overfished	Overfished	2	1
Witch flounder - Northwestern Atlantic Coast	NE	Not Subject to Overfishing Not Overfished B/Bmsy>80%	Subject to Overfishing Overfished	4	1
Yellowtail flounder - Georges Bank	NE	Subject to Overfishing	Not Subject to Overfishing	1	2
TOTAL FSSI SCORE				573	571.5

Overview of overfishing status of non-FSSI stocks through March 31, 2010

- 60³ stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 59 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).
- 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

- In the Pacific Islands Region –
 - An additional 4 crustacean stock complexes and 1 squid complex have been added and 1 crustacean stock removed; all of these stock complexes have an undefined or unknown overfishing status.
- There are no changes to the other Regions.

Overview of overfished status of non-FSSI stocks through March 31, 2010

- 27³ stocks or stock complexes are known with respect to their overfished status. Of these:
 - 23 stocks or stock complexes are not overfished (1 of these stocks are approaching an overfished condition).
 - 4 stocks are overfished.
- 269 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 Northwest Region –
 - *Chinook salmon - California Central Valley: Sacramento (fall)* is now overfished.
- In the Pacific Islands Region –
 - An additional 4 crustacean stock complexes and 1 squid complex have been added and 1 crustacean stock removed; all of these stock complexes have an undefined overfished status.
- There are no changes to the other Regions.

FSSI stock status updates are posted quarterly at:

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

³ This number includes Pacific halibut, which is managed by the International Pacific Halibut Commission.