

Fish Stock Sustainability Index (FSSI)

2011 Quarter 1 Update through March 31, 2011

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 stock status becomes known, overfishing is ended, and stocks increase 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

2011 Quarter 1 Score = 583 (January 1, 2011 to March 31, 2011)

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: 43 Not Overfished: 134	177	88.5	115	Determine the "overfished" status for the remaining 53 stocks	26.5
2. "Overfishing" status is known Overfishing: 39 Not subject to overfishing: 154	193	96.5	115	Determine the "overfishing" status for the remaining 37 stocks	18.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	154	154	230	End overfishing on the 39 stocks subject to overfishing. Ensure the 37 stocks (see #2 above) are not subject to overfishing.	76
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 43 overfished stocks. Ensure the biomass for the 53 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)	110	110	230	For the 43 overfished stocks and the 24 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 53 stocks (see #1 above) is at or above 80% of B_{MSY} .	120
TOTAL		583	920		337

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, 2011 through March 31, 2011

Overview of overfishing status of FSSI stocks through March 31, 2011

- 193 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 154 stocks or stock complexes are not subject to overfishing.
 - 39 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 37 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, 2011

- 177 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 134 stocks or stock complexes are not overfished (4 of these stocks are approaching an overfished condition).
 - 43 stocks or stock complexes are overfished.
- 53 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
Haddock - Gulf of Maine	NE	Not Overfished – Rebuilding	Rebuilt	3	4
Longfin inshore squid - Georges Bank / Cape Hatteras	NE	Not Subject to Overfishing B/Bmsy – no estimates	Overfishing – Unknown* B/Bmsy > 80%	3	2.5
Offshore hake - Northwestern Atlantic Coast	NE	Not Overfished	Overfished – Unknown*	1.5	0
Red hake - Gulf of Maine / Northern Georges Bank	NE	Overfishing – Unknown	Not Subject to Overfishing	2.5	4
Silver hake - Gulf of Maine / Northern Georges Bank	NE	B/Bmsy < 80%	B/Bmsy > 80%	3	4
Silver hake - Southern Georges Bank / Mid-Atlantic	NE	B/Bmsy > 80%	B/Bmsy < 80%	4	3
Royal red shrimp – Gulf of Mexico	SE	Not Overfished	Overfished – Unknown*	3	1.5
Pacific hake - Pacific Coast	NW	B/Bmsy < 80%	B/Bmsy > 80%	3	4
TOTAL FSSI SCORE				583	583

*The most recent stock assessment concluded that the previous assessment used to determine stock status was invalid. As a result, the status is changed to unknown.

Overview of overfishing status of non-FSSI stocks through March 31, 2011

- 61³ stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 60 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).
- 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

- In the Alaska Region –
 - Golden king crab – Pribilof Islands is not subject to overfishing (was previously unknown).
- There are no changes to any of the other Regions.

Overview of overfished status of non-FSSI stocks through March 31, 2011

- 28³ 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).
 - 5 stocks are overfished.
- 270 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 - Northern California Coast: Klamath (fall) is now rebuilt.
- There are no changes to any of 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.